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SCHOOL WORK AND SPARE TIME

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SCHOOL WORK AND SPARE TIME

BY

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FOREWORD

This report on *School Work and Spare Time* is one of the seven sections of the report of the Recreation Survey of Cleveland conducted by the Survey Committee of the Cleveland Foundation in 1917. Six of these sections will be published as separate monographs. In addition, there will be a larger volume giving a summary of the findings and recommendations of the six sectional studies, with a comprehensive recreation program for the community as a whole. Copies of all these publications may be obtained from the Cleveland Foundation. A complete list will be found in the back of this volume, together with prices.

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SCHOOL WORK AND SPARE TIME

INTRODUCTION

CHAPTER I

PURPOSES AND METHODS OF THE INVESTIGATION

Throughout the history of education there has often come to expression a belief that the school has a large obligation in creating interests which will express themselves in spare time as recreational activities which will be wholesome and satisfying. Such would be an actual cultural education. In the face of the charge frequently brought against present-day innovation in educational theory or practice, that the emphasis of the time is setting up a more or less utilitarian vocational education, to the negation of the so-called liberal or cultural outlook, it is therefore in point to inquire whether the traditional method of teaching and the conventional subjects of study, as they have grown into our school system, have indeed produced those results in cultural development which have been presumed to be their function.

On the other hand, the place of spare-time activities in promoting or retarding school progress

has not up to this time been determined. There is a general impression that some of the spare-time pursuits of school children may be wasteful, in that they undermine health or cultivate unwholesome attitudes, or in that they develop standards and ideals of conduct opposed to those set up by the school as desirable. There is also a current idea that some uses of spare time are a distinct asset for school progress in that they are health-giving, or in that they stimulate and cultivate wholesome attitudes, or in that they further emphasize and develop the interests and ideals presented by the schools. There are some likewise who believe that spare-time activities may render large service to the schools in revealing the interests and aptitudes of children, thus disclosing motives and purposes which the schools may well utilize in vitalizing the method and the content of their teaching.

To find what the actual relationships are between school work and the uses of spare time is the purpose of this study.

Method of Inquiry

The problem, when methods of attack for the purposes of this study were considered, seemed to require that we find out how children actually do spend their spare time, what the factors are which condition or cause such forms of spare-time activity as are found to prevail, what the influences of various kinds of spare-time pursuits upon school progress are, and what means of control the schools have for

promoting those pursuits found to be desirable and for eliminating those that are wasteful.

Under existing conditions of school, home, and community life, the relationships between school progress and spare-time activities can be discovered and valued only indirectly. The avenues of approach to these relationships which study of the problem revealed as offering the most promising results seemed to be the following:

1. Finding and charting the dominant spare-time activities of normally distributed children and young adults, to discover their character and to make them available as standards or norms for comparison when special groups are considered;

2. Discovering what spare-time activities, interests, and attitudes, when developed in childhood, are permanent and so call for direction by the school;

3. Finding what correspondence there is between rate of school progress and extent of the various recreational activities and interests;

4. Ascertaining what factors are most significant in determining or conditioning spare-time interests and activities, including: (*a*) native abilities or aptitudes; (*b*) family conditions and status; (*c*) school interests and activities as reflected by spare-time activities.

The most practicable means of getting the facts seemed to be that of going to the children themselves. Questionnaires[1] were therefore prepared and submitted to 15,000 children of the elementary and high

[1] For forms used, see Appendix.

schools of Cleveland, beginning with children of the fifth grade. There were included public schools, private schools, and schools for delinquents. Schools were so selected that the 15,000 sets of papers should be representative of the whole school population of the city.

The blank forms included a calendar to be filled out for a school day, a Saturday, and a Sunday; they asked a number of specific questions about home conditions and opportunities for recreation, and other questions about various forms of specific activities engaged in at home and outside of the home; and a specially devised form called for statements of preferences in regard to school subjects. In addition, each child was asked to write a composition in which he should tell in his own way how he had spent his spare time on a given school day and during a week-end.

In order to secure a basis of comparison for the results obtained from the children, most of the questions were also submitted to about 300 men and women employees under 30 years of age, working for various firms in Cleveland. All the questions were submitted and the results secured in March and April, 1917.

How the Collected Facts Were Used

As it was physically impossible to utilize all of the more than 500,000 facts collected, tabulations were made of a selection of each fifth set after the papers had been alphabetically arranged by grades for each

school. For several schools the answers were also tabulated in full. A comparison was then made of the results obtained both for the one-in-five selection and for the complete enrolment of these individual schools, with respect to certain significant items. In general it was found that the conclusions would be the same whether the one selection or the other was used—excepting, of course, in the case of the private schools and the schools for delinquents, for which the selection of one questionnaire in five would give numbers too small to be usable. For the larger group, therefore, the one-in-five selection was used, excepting where correlations with ability tests were considered. Ability tests were given to but 1,500 children, all pupils in two elementary schools and two high schools.

The children were responsive and seemed to enjoy the work, their teachers were uniformly helpful, the co-operation of principals and of the city superintendent was all that could be asked, and it is a pleasure to offer this word of appreciation for the fine spirit and efficiency with which aid was given in securing the material of this study.

General Trend of the Findings

Tabulation of the various reports for the whole list of children and for the selected groups, and comparison of the facts presented, have made clear certain general trends of evidence:

1. Differences in home circumstances affecting social influences, family direction, and economic

resources to a large extent determine the range and kind of a child's spare-time activities. These activities in turn are shown to have a large measure of relation to his school progress, even though it is not possible to isolate and weigh completely the influences which account for the differences of relation between school progress and recreational pursuits. Pupils both of fortunate and of less favorable circumstances are found in both the elementary and the high school, among those classed as making progress above normal and among those rated as below normal, among children of more than average ability, and of less than average ability.

On the other hand, the fact that pupils of less favorable home circumstances participate in recreational activities to a much lesser degree than their more favorably situated mates—in view also of the fact that the out-of-school time of the former is so much more occupied with actual work—places upon the school a correspondingly greater charge of making up to these pupils their recreational deficit and of fostering opportunities, and on their part a responsive desire, for enjoying their birthright of play.

2. There is very little of such relation as might be expected between the studies representing the school treatment of such interests as music, reading, drawing, and manual arts, and the spare-time occupations which hinge upon the same interests. Manual training is an isolated instance in which the school development of a subject hits the pace of the child's

constructive interests, and sets up a genuine relation between the child's response to it as a school interest and his enjoyment of it as a spare-time occupation.

3. In general, the school does not conserve for the high school and into the after-school life those interests which might contribute to the enrichment of leisure and the enlargement of the cultural vision and functioning of the individual. Music, fine arts, natural sciences, reading—studies which are widely assumed to be the foundation of an intellectual leisure life—and physical education, through which wholesome outdoor and athletic habits should accrue to adult life for the warding off of the sedentary inclinations fostered by the social and industrial order of our day, as school subjects rank low in the interest of children in the elementary school stages.

The subjects which hold their own are those in the light of which a pupil generally makes his choice for or against going on to high school—arithmetic, language, science, the "major" school subjects on the basis of which progress in school is generally measured—so that the scores for these represent the preferences of a group of pupils *selected* by very reason of their predilection for these subjects.

4. For both men and women, the recreation habits formed early in life are the habits on which their later recreational life depends. Although half of the activities of childhood are shown to have dropped out of the lives of the adults of this study, and even though those which are left show a lowered intensity,

no new activities come to take the places of those which have lapsed. The activities which fall practically into disuse are such vital things as theater-going, music, outdoor sports, and gardening, which should constitute recreational resources for adult life. Even more striking than this reduced range of activities is the fact that the relative numbers of persons reporting the activities which are retained in interest fall to the level of, and even below, the percentages of those economically least favored groups who make the most meager showing in the childhood period. None of the adult activities, as they are reported by the various groups, attain a percentage of mentions which is comparable to that for the corresponding activity among the high school groups.

5. A comparison of normally progressing children with selected groups of children of more than two years' acceleration or retardation in school progress yields a number of significant conclusions:

In *total activity* there is no important difference between accelerant and retardant pupils, nor between either of these and children rated as normal in school progress. All three classes of pupils expend about equal amounts of time and energy on spare-time pursuits, but they spend them respectively in radically different ways. These differences in spare-time inclinations are in part assignable to differences of interest and aptitude and habit, and in part clearly traceable to limitations or advantages of social and economic opportunity chargeable to home background.

The pupil whose response to school demands and incentives is just normal, as measured by his ability to maintain the rate of progress fixed by the school as normal, is at the same time the child who abides for the most part by certain types of activity broadly recognized as the normal occupations of the leisure of childhood. Play and outdoor sports, riding, camping, baseball, going out or downtown, work about the home, and reading fill the interests of the normally progressing boy. He has a moderate share of music and church-going, and a moderate interest in walking or hiking, in pets, and in making things. He plays basket-ball, is given to gardening and visiting, plays baseball, and is more frequently chosen captain than the boys of the other school types. He does less of the desultory things which the retardant boy does, such as playing pool or billiards,[1] he is much less under the disability of work outside of his home; the mothers of the normally progressing pupils also are comparatively more free from outside work.

The normally progressing boy is less inclined than either of the other types of boys to pursuits indicating special tastes or decided individuality, such as making collections, going to the theater, magazine

[1] Investigation in Cleveland has shown that this form of diversion, by reason of the regulations and attitudes operative in city poolrooms, which debar young boys from the better kind of places and afford them only precarious opportunities —limited largely to "hanging around" in inferior establishments, among unwholesome associations—is quite inevitably linked up with loafing and the negation of even the real play impulse. On this point see also Vol. I of this series, *Delinquency and Spare Time.*

reading, and to unstereotyped or not readily classifiable pursuits—here classed as "miscellaneous"—such as might imply variation from type. He is comparatively less inclined to do things he reads about, which implies that he displays in slighter degree than the other boys a certain experimenting initiative in carrying suggestions into action, either desultory or purposeful. He goes least of all the boys to libraries and museums or to Sunday school, and has least athletics or gym work; he reports less vacation trips, and does not have as high an average as the accelerant boy in the number of games he plays.

The normal girl, similarly, has a radius of recognized activities, in making things, playing, musical interests, going to Sunday school, camping, walking or hiking, taking vacation trips, riding, visiting, and having pets; many of these activities are home-directed, and all of them are pursuits of the supervised kind. She is interested in libraries and museums as much as the accelerant girl, she is moderately interested in basket-ball, going to the theater, has a moderate share of work about the home, and reports a moderate number of books read. Her general score for reading falls much below that of the accelerant girl, and is even slightly less than that of the retardant girl. Her interest in collections is comparatively slight; her participation in church interests, in basket-ball, in doing things read about, and in gardening and running errands is less than that of any of the girls of the other groups. She has

no unusual or miscellaneous pursuits, and does not work at all outside of the home.

The accelerant boy is distinguished by greater participation in certain academic or school-approved interests and activities, such as going to libraries and museums, athletics, and Sunday school, and reports a comparatively greater number of books and of games. He shows greater initiative than the boys of the other groups in the choice of individualized and special pursuits, reported as miscellaneous, and a similarly greater interest in music and churchgoing seems to go directly with his heightened school progress. He reads, rides a little, and has a greater interest in the theater than any of his comrades of the other groups. He has only a fair interest in vacation trips, play, making things, and doing things read about. He is very much interested in baseball, as are also the boys of the other groups, and reads more magazines than the normally progressing boy, but no more than the retardant. He abstains, as compared with the other boys, from vigorous outdoor things such as gardening, outdoor sports, camping, having pets, and from desultory things such as going out or downtown, and playing pool or billiards. He works least outside of the home, and his mother is more free from work outside of her home than the mothers of the boys of the other groups. The accelerant boy runs more errands than the boys of the other groups, but does least work about the home.

The accelerant girl is distinguished by the largest adaptability to the conspicuously schoolish occupa-

tions, such as reading and writing, and by a ve great interest in wholesome and outdoor purs such as play, gardening, outdoor sports, and in athletics and basket-ball. She has experimental individualized interests—shown by her large share of miscellaneous pursuits, and by her relatively greater score for magazine reading. She is interes as much as any one in music, Sunday school, a.. libraries and museums. She goes out or downtown more than the other girls, but this activity in the case of the girl probably differs from that of the boy —hers being home-directed, probably more purposeful and specific, and having some elements of social activity. She reports a greater number of games, and plays slightly more than any of the other girls. She plays baseball, does things read about, in common with all the groups, reads an average number of books, and takes vacation trips. She does not spend much time in summer camps or on walks or hikes, and has decidedly less interest than the other groups in making things. She also eschews theater-going, making collections, and work about the home. The mother of the accelerant girl is fairly free from outside responsibility, and the girl herself does an inconsequential amount of work outside of the home; she runs errands more than the normal girl, indicating perhaps greater capacity for responsibility, and she does some work, though less than the girls of the other groups, about the home. Her interest in church is slight.

The retardant boy is the motor type of child.

He puts into action the suggestions of his reading; shows a greater taste than the others for nature and animals; he is given to having pets, to going on walks or hikes, to gardening, to playing basket-ball and baseball, and to taking vacation trips. He is spurred also to experimental or unconventionalized pursuits, to making things, and reports an interest in magazine reading equal to that of the accelerant boy (though he reports reading fewer books than the latter), and has special interests such as theater-going and collecting. He is given to doing desultory things, going out or downtown, and playing pool or billiards. He has the largest score for work of all sorts, especially for work outside of the home. It is the mother of the retardant boy also who most frequently works outside of the home for pay. This boy gets along with very little playing and no music. He does not seek out or else does not meet with opportunities for the directed recreations, such as athletics and gym, outdoor sports, going to libraries and museums, games and riding; he does a little camping, and does not go much to Sunday school and church, as compared with the boys of the other groups. He has a decided social inclination, however, for he visits nearly as much as the normal boy, has a fair score for going out, and scores slightly even in those social activities in which children in general show very little or no interest.

The retardant girl also makes things, puts into action things she reads about, is fond of outdoor life and of walking or hiking, goes camping, plays

baseball, and is as often captain as the accelerant girl. She shows a decided social bent in her visiting, and in the fact that even in those conventional social activities which children altogether do not participate in to any appreciable extent—dancing, dinners, clubs—her scores are higher than those of any other groups; but she lacks athletics and gym, basket-ball, outdoor sports, gardening, going out or downtown, reading (her average for books read is also low), interest in magazines, play (although she has a moderate score in games), music, trips to libraries or museums, Sunday school activities, vacation trips, riding, and pets.

Non-participations of this sort in the case of the accelerant girl seem to be accounted for not so much by lack of opportunity as by the fact that she inclines to other compensating occupations; in the case of the retardant girl, however, this startling absence of normal childhood interests and pursuits is balanced by no others at all—except that, strikingly, this girl makes up for such recreational limitation by an over-indulgence of her gregarious or social and emotional side, as shown by her disproportionate scores for church and theater-going. That she has some individualized tastes is shown by the fact that she exceeds all others in making collections and that she reports a moderate percentage of unclassified or miscellaneous pursuits. On the other hand, much of her restricted play life is explained by the fact that she has by far the largest responsibility for work—work in and out of the home,

running errands, and work outside of the home. In the case of the girls, too, it is most frequently the mother of the retardant who works outside of her home for pay.

6. It appears that while certain activities are neutral so far as their effects on school work go, certain others have a definitely favorable relation to school progress, certain others as definitely unfavorable a relation. Of the import of these relationships for the school there has been but little recognition, either on the side of the opportunities presented in such revealed aptitudes of pupils which the school might use to further its own objectives, or on the side of the maladjustments between child and school implied in recreational interests which, while valuable and promising for the child, run counter to or interfere with the program the school sets up for him. Yet no other factors—neither age differences, differences in native ability, or in economic condition as determined by the occupational status of the fathers—show any relation to spare time as clearly defined or as direct as do these factors of spare-time activity.

7. The school has also failed to interpret purposefully the reading interests of children. It has had little regard to such out-of-school reading as might be held to be directly in line with school aims, and has done little to avail itself of or give necessary guidance to special interests either pertinent to or detached from school subjects, or to re-direct the inclinations of children who have fallen upon worth-

less or dissipating reading-matter, into more wholesome and constructive channels. It has let special interests lie fallow even where they have been indications of individualized aptitudes—æsthetic, scientific, practically constructive, or socially realistic—capable of being put to use with large social and practical value.

The out-of-school reading of children is shown to stimulate a great amount of constructive and social activity, important both as revealing valuable natural interests in children, and as evidence of the potent part reading plays in the development of such interests. Of the part it might be made to play, if the school were to avail itself of the hold on the interests of children thus offered it, our present educational method has given no demonstration.

8. If the interests implied in the spare-time activities of children were to be put to appropriate use by the schools, some of the activities which apparently make for retardation might become assets in relation to school progress instead of liabilities. The problem of making the most of the spare-time interests of children calls for the co-operation of institutions and persons interested in the development of education and of recreation; its solution must take into account both the responsibility of the school for developing recreational life through the school treatment and recognition of the avocational inclinations of children, and the application of spare-time interests and activities to the ends of education.

CHAPTER II

DOMINANT SPARE-TIME ACTIVITIES OF CHILDREN AND ADULTS

To find the dominant spare-time activities of both the children and the adults of our group, questions were asked in regard to specific pursuits, and each individual was asked to fill out a calendar blank indicating what he had done with his spare time in the forenoon, afternoon, and evening of the last day he had spent at school or at work, and on the preceding Saturday and Sunday. The children were also asked to write, in composition form as home work, a statement of what they had done in their spare time on the last day spent at school and on the preceding Saturday and Sunday, from the time of arising in the morning until they went to bed at night, indicating as nearly as they could the time of day at which each activity was engaged in, and the amount of time it occupied.

From these three sources tabulations were made. The boys and men reported 47 different forms of spare-time activity, and the girls and women 48. Of these, only such as were named by 5 per cent or more of the persons of the group reporting are given place in this analysis (see Tables I and II, and Dia-

TABLE I

SPARE-TIME ACTIVITIES OF BOYS AND MEN REPORTED BY 5 PER CENT OR MORE OF THE RESPECTIVE GROUPS

(In Percentages of Persons Reporting Each Activity)

ACTIVITIES AND CIRCUMSTANCES	ELEMENTARY SCHOOL			HIGH SCHOOL		EMPLOYEES
	Delinquent 200	Public 235	Private 96	Public 191	Private 98	107
A. SPARE-TIME ACTIVITIES						
Clubs	..	19	18	12	16	6
Church	41	49	25	45	62	36
Sunday school	6	28	38	33	21	11
Theater	27	87	34	56	47	32
Music	..	13	6	12	..	5
Library or museum	..	7	..	10	..	..
Reading	40	44	51	83	68	27
Games	69	34	97	60	84	..
Athletics and gym	..	17	6	5	23	..
Baseball	89	92	91	81	84	59
Collections	29	52	71	38	61	24
Riding or motoring	..	..	6	16	75	..
Fishing or hunting	18	..	6	..	..	..
Skating	..	13	9	..	6	..
Basket-ball	..	..	..	16	..	..
Vacation trips	22	62	93	63	92	55
Making things	..	..	9	8	9	..
Walks	25	23	25	38	50	18
Visits	..	37	28	50	58	16
Going out	..	..	..	13	9	..
Dancing	..	..	..	..	45	..
Going downtown	..	13	26	16	34	..
Pool or billiards	..	..	..	6	21	..
Sleeping or resting	..	8	..	23	6	..
Nothing	19	..	..	..	..	..
B. HOME CIRCUMSTANCES						
Fathers dead	40	14	5	7	11	25
Mothers working for pay	35	20	2	18	1	..
Work outside of school	65	50	32	52	28	..
Having gardens	58	54	77	57	65	48
Having pets	61	47	62	45	66	44

grams 1 and 2), as those falling below this minimum could scarcely be considered to be representative of

TABLE II

SPARE-TIME ACTIVITIES OF GIRLS AND WOMEN REPORTED BY 5 PER CENT OR MORE OF THE RESPECTIVE GROUPS
(In Percentages of Persons Reporting Each Activity)

ACTIVITIES AND CIRCUMSTANCES	ELEMENTARY SCHOOL			HIGH SCHOOL		EMPLOYEES
	Delinquent 78	Public 232	Private 87	Public 230	Private 99	108
A. SPARE-TIME ACTIVITIES						
Sunday school	10	31	42	28	33	5
Music	5	16	27	26	16	6
Library or museum	..	16	..	9	..	..
Reading	31	34	70	84	81	24
Writing	..	5	..	..	13	..
Games	15	57	75	..	5	..
Going downtown	..	18	8	28	67	10
Going out	6	..	12	5	..	..
Vacation trips	29	65	98	69	92	56
Skating	..	10	14	..	..	..
Riding or motoring	..	..	40	14	65	..
Basket-ball	..	..	..	5	17	..
Baseball	40	17	53	67	72	44
Collections	..	39	50	34	31	37
Making things	..	15	12	14	..	..
Church	44	40	21	49	67	43
Visiting	12	54	70	67	86	18
Theater	35	58	33	56	67	31
Dancing	..	6	25	9	14	13
Walks or hikes	10	24	45	38	53	27
Dinners or teas	..	..	..	6	24	..
Clubs	..	15	12	7	9	..
Parties or picnics	..	16	..	8	..	..
Entertaining	..	..	8	25	28	5
Sleeping or resting	..	..	..	10	14	6
B. HOME CIRCUMSTANCES						
Fathers dead	49	11	6	10	3	25
Mothers working for pay	35	12	..	48	3	..
Work outside of school	27	30	50	18	5	..
Having gardens	26	63	71	62	86	49
Having pets	41	52	66	43	72	49

any group. The children whose answers and composition statements were tabulated included 200

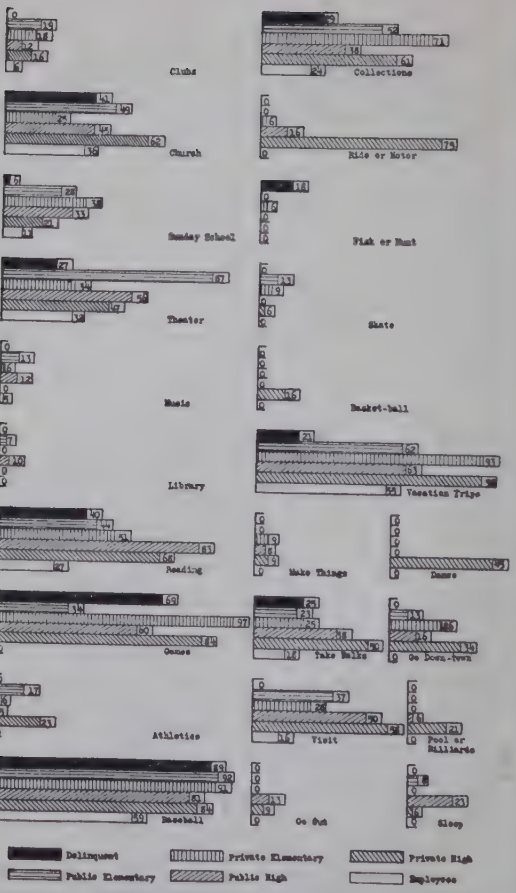


DIAGRAM 1.—SPARE-TIME ACTIVITIES OF BOYS AND MEN

The bars, representing percentages of persons reporting each activity, show the proportionate place, in the spare-time interests of the various groups, of each activity reported by 5 per cent or more of each group, as shown in Table I, Section A.

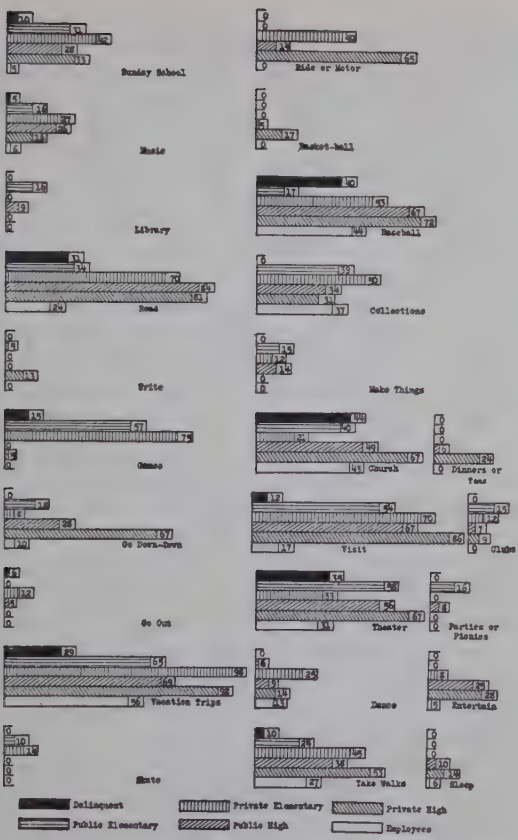


DIAGRAM 2.—SPARE-TIME ACTIVITIES OF GIRLS AND WOMEN

The bars, representing percentages of persons reporting each activity, show the proportionate place, in the spare-time interests of the various groups, of each activity reported by 5 per cent or more of each group, as shown in Table II, Section A.

boys and 78 girls from schools for delinquents of elementary school grade; 235 boys and 232 girls from public elementary schools; 96 boys and 87 girls from private elementary schools; 191 boys and 230 girls from public high schools; and 98 boys and 99 girls from private high schools. In addition to the data thus assembled, records were secured for 107 men and 108 women, between the ages of 18 and 25 years, who were, as stated above, employees of various business firms in Cleveland.

These results give a cross-section of what children and a typical section of young employed adults in Cleveland actually do in their spare time, and constitute a kind of norm for purposes of comparison when any special group is under consideration. By comparison of the percentages for the high school pupils and the adults with those for the elementary school pupils, the relative persistence of various activities may also be noted; a detailed consideration of such persistences belongs to the discussion of a later chapter.[1]

A number of activities, on the other hand, fail of attaining a frequency of mention sufficient to admit them to comparison with those given in the tables. Among the activities reported as actual and present pursuits by fewer than 5 per cent of any of the groups whose replies are represented in Tables I and II, are: selling papers, swimming, boating, going to the woods, attending parties, drawing, writing, drilling, playing cards, loafing, and attending Boy Scout

[1] Chap. v.

meetings. Nevertheless, some of these very activities are reported by the high school and adult groups (chap. v) as having had a place in their spare-time activities since childhood. These latter statements, however, are in answer to questions on activities retained in liking or interest, which involve a general review of occupations belonging to the past years as a whole, with naturally therefore much less consideration of seasonal hindrances or suspensions of the moment. The fact that Tables I and II are made from the children's reports of their activities for a school day and for a week-end at some time in March or in the first two or three weeks in April makes it apparent why skating, for instance, does receive a score large enough to array it in these tables, while football and tennis are mentioned not at all, and swimming with a score below the minimum.

Meaning of Facts Shown in Tables I and II

Section A of the tables presents the scores for spare-time activities viewed quite simply in relation to the child as the doer, and considered apart from environmental influences; Section B presents comparable scores which serve as a measure of influences bearing vitally on recreation. These reveal significant differences in the home circumstances constituting the background against which the recreational activities as such may be more accurately interpreted.

The meaning of the percentages is in most cases obvious without elaboration. From a comparison of the several columns in the respective tables, it is

evident that, if we consider the purely recreational pursuits—excluding work as reported in its various forms—the high school students for the most part exceed in richness of activity the elementary school pupils. The private high school pupils report generally larger participation in these activities than the public high school pupils. In regard to the several forms of work taken together, the reverse of both these statements is true. This reflects the effect of a selection based upon the differences in economic status of the respective homes. In the elementary school group, the amount of total activity, excluding the several forms of work, is greater for the public school pupils, but even here those activities of childhood which are most dependent upon much spare time and the economic well-being of the home—such pursuits, for instance, as riding or motoring, or taking vacation trips—fall in amount relatively far below the same activities as reported by the private school pupils. And the record of the adult employees, while it is to be expected that many of the pursuits of childhood will have ceased to interest the individuals of their group, is deplorably low as a measure of a rich and satisfying recreational life.

Home Circumstances of the Children

The significance of the division by public and private school enrolment is one of economic differentiation, and, so far as home supervision goes, of social classification in the larger sense. The private school pupils

represent the most favorable background of economic opportunity and home or personal supervision. The public high school pupils may be said to represent a group rather more favorably situated than the elementary school groups, inasmuch as economic condition determines more or less the possibility of a child's going into the high school—a selection which tends therefore to eliminate the less fortunately situated. The public elementary pupils are an economically unclassified group, on the whole reflecting most nearly the total distribution of economic gradations represented by families in Cleveland, including as well the well-to-do and the child of very meager means. From this group delinquents as well as high school pupils are recruited.

The delinquent group represents the other extreme, as compared with the private school pupils. Theirs are shown to be the least favorable home circumstances; theirs are the homes straitened by the death of the father and the shifting of the burden of support in part or wholly upon the mother, indications both of precarious economic situation and of necessary curtailment or absence of parental supervision. The fathers of over 40 per cent of the delinquent boys and girls are dead; the mothers of over a third of these boys and girls work for pay. The more fortunate home conditions of the other groups are made evident in their percentages for these respective factors (see Diagram 3).

With such disadvantages goes an impoverished range of spare-time activities, putting the problem

very clearly when considered on the negative side: the delinquent boy does not go to clubs, nor to libraries or museums; he does not make things, nor play basket-ball nor go to gymnasiums, nor skate nor ride, does not visit, go out or downtown, or play pool or billiards, and he has no musical interests.

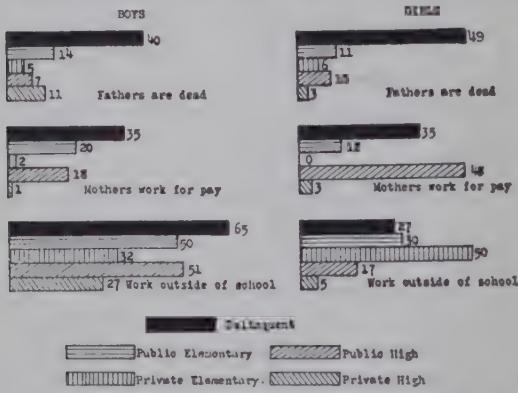


DIAGRAM 3.—DIFFERENCES IN HOME CIRCUMSTANCES OF DELINQUENT, PUBLIC, AND PRIVATE SCHOOL GROUPS

The bars show the relative significance, for the respective groups of school children, of the facts arrayed in Section B of Tables I and II

Some of these abstinences are of course due to the fact that detention at the time of reporting was debarring this group from the pursuits in question; but the fact that they report walks and hikes, and hunting and fishing—activities which possibly reflect a characteristic former tendency to go out of bounds—

would seem to indicate that they have not left out of consideration their pre-institutional pursuits. The delinquent girl does not go to libraries or museums, nor downtown, nor to clubs or parties or picnics; she has no social life at all, except for some slight visiting, does not skate nor ride nor play basket-ball nor make things, nor is she interested in collecting.

It is impossible to isolate completely the influences which account for the differences of relation between school progress and recreational pursuits; yet it seems reasonable to conclude that the economic and social status of the home counts for much (see chap. vii). The selection represented by the high school pupils is certainly based in considerable measure upon favorable differences in economic and social condition; yet among the high school pupils there are many who come from homes which rank among the less well-to-do financially. The fact that the public high school pupils participate in recreational activities to as much less a degree than the private high school pupils as the percentages show in most cases, coupled with the fact that they work so much more outside of school—this is especially true of the boys—and that almost half the mothers of the high school girls work for pay, imposes upon the school the greater need and obligation of providing richer recreational opportunities and of developing interest in them.

PART I

WHAT SCHOOL WORK DOES AND MIGHT DO FOR SPARE TIME

CHAPTER III

RELATION OF SCHOOL-SUBJECT PREFERENCES TO SPARE-TIME INTERESTS

Each of the individuals of the several groups designated in the preceding chapter was asked to indicate on another questionnaire the order of his preferences among his school subjects.[1] The preferences of 236 graded elementary school boys (public and private), 135 public high school boys, 69 delinquent boys, and 32 men employees are arrayed in Table III, and those of 224 graded elementary school girls (public and private), 150 public high school girls, 24 delinquent girls, and 42 women employees, in Table IV. The preferences of the private high school pupils were to have been included, but because of some loss or oversight, forms reporting school-subject preferences were not secured from enough private high school classes to make the results at all valid for comparison.

The order given to the various subjects in the

[1] See Appendix for form used.

column marked "Subjects" in the respective tables indicates the order accorded them by the votes of the total school groups of boys and girls, respectively (see Diagram 4).

TABLE III

ORDERS OF PREFERENCE IN SCHOOL SUBJECTS REPORTED BY DIFFERENT GROUPS OF BOYS AND MEN

SUBJECTS	ORDER OF PREFERENCE					
	All School Boys 440	Delinquents 69	Public Elementary School Boys 139	Private Elementary School Boys 97	Public High School Boys 135	Employees 32
Manual training	1	5	1	1	3	2
Arithmetic	2	1	3	2	2	1
History	3	2	2	4	1	4
Physical training	4	10	6	3	4	3
Geography	5	4	4	9	5	5
Drawing	6	13	5	6	6	7
Reading	7	3	7	5	8	6
Language	8	9	10	8	11	11
Grammar and composition	9	11	12	10	10	13
Spelling	10	6	8	7	9	8
Science and physiology	11	12	13	11	7	10
Music	12	8	9	13	13	9
Writing	13	7	11	12	12	12

The elementary school preferences of the high school pupils and employees are given on the basis of memory, while those of the elementary pupils are reported at the very time when they are engaged in work in these subjects. There are, of course, the chance and the probability that changes of interest due to increasing age and experience influence the attitudes of the older pupils and employees toward the studies of their earlier years, and modify their discrimina-

tions among their recollected preferences. But their statements with regard to highest and lowest preferences are probably fairly accurate, and represent the attitude they had toward these subjects when they

TABLE IV

ORDERS OF PREFERENCE IN SCHOOL SUBJECTS REPORTED BY DIFFERENT GROUPS OF GIRLS AND WOMEN

SUBJECTS	ORDER OF PREFERENCE					
	All School Girls 398	Delinquents 24	Public Elementary School Girls 129	Private Elementary School Girls 95	Public High School Girls 150	Employees 42
Arithmetic	1	1	1	5	6	4
Reading	2	2	3	8	1	1
History	3	4	7	2	4	3
Spelling	4	8	2	9	2	6
Drawing	5	3	4	4	8	11
Music	6	10	5	10	5	2
Language	7	6	6	7	7	7
Grammar and composition	8	11	12	6	3	5
Physical training	9	13	11	1	9	9
Geography	10	9	10	3	13	8
Household arts	11	5	8	11	10	12
Writing	12	7	9	13	11	10
Science and physiology	13	12	13	12	12	13

were studying them. The doubtful subjects—those whose given rankings in preference might be questioned—would be those found near the middle of the list.

SIGNIFICANCES OF PREFERENCES

While there are various implications in the tables which are significant from the point of view of general education, those which are particularly of interest in relation to the subject of recreational activity

are those bearing on reading, music, drawing, and physical education—subjects which are presumed to cultivate interests and tastes which will influence the use of spare time—and on manual arts and science, which represent activities in which boys are found to be much interested and engaged in their spare time.

Reading, the most important of both vocational and cultural school studies, is found to rank seventh for all school boys, and about midway of the list for the different male groups respectively, except in the case of the delinquents, among whom it takes third place. Probably, in the minds of the pupils as they record their choices, reading as a school subject represents a combination of the content of school reading-matter and the processes of getting the mechanics of oral reading. Despite the indictment for unattractiveness brought against reading by these statements of preferences, the spare time of these same children is found to be much occupied by reading (see Tables I and II, chap. ii, and also chap. vi). Spare-time reading doubtless is engaged in with genuine pleasure. Perhaps the time will come when this may be said of school reading. If school reading is to be depended upon to cultivate taste in the selection of wholesome and satisfying reading-matter, the school will certainly profit much by giving serious consideration to the kinds of reading shown (chap. viii) to be of interest to children and young people, and by endeavoring to make use of the interests thus revealed to elevate standards and at the same time make school reading a greater source of enjoy-

ment in itself. If the emphasis in school reading were put more largely upon interesting content, it might be found that much of the mechanics of reading would be mastered unconsciously as a by-product.

Music stands deplorably low in the orders of preference indicated by boys and men. If the subject is so taught in the schools that pupils like it least, or almost least, of any of their studies, how can it be expected that the work they do in it will tend to cultivate finer taste in and enjoyment of music as a recreational interest? In general, children like music. Is not a teaching of music, then, which does not preserve this liking, increase it, and refine it, not merely a failure, but worse than a failure? Is not the very first and most important purpose in the teaching of music that of enjoyment—building, upon a natural love of music, experiences which will increase and refine that enjoyment?

Physical education stands in fourth place for all the boys taken together. This is perhaps as high for pupils in general above the fourth grade as may reasonably be expected, as other interests begin, in the upper and high school grades, to compete strongly with the play interest. But throughout the whole school period the physical education activities will be effective in producing a wholesome physical and mental tone, and will lead to continued participation in them which will influence both out-of-school and after-school life, if only they are thoroughly enjoyable and enjoyed in the school itself. These considerations should cause anxiety over the

fact that among the great mass of boys—i. e., the public elementary school group—physical education ranks only sixth, and among delinquents tenth. These boys are at the age when the play element in physical education could be made to enlist deep interest which would accrue later in life to the enduring aspects of this activity. How far does this lost opportunity account for the general and deplorable decrease of active recreation pursuits found among adults?[1]

Manual training, occupying, as a school subject, first or nearly first place in the preferences of all of the groups of boys except the delinquents, who give it fifth place, reflects the school aspect of the very large interest in making things and in other constructive activities which, as the second part of this report will show, is revealed in the analysis of the spare-time interests of children (chap. vi). That the work in this subject is so developed in the schools that boys thoroughly enjoy it is evidenced by its place in these orders of preference. Here, more than in any other subject, we find a close correspondence between active out-of-school participation and in-school enjoyment. Doubtless the interaction of in-school and out-of-school activity in this field is beneficial to both, and each aspect substantially influences and reinforces the other.

Scientific subjects, as represented among the school studies by science and physiology, rank very low in

[1] See *Wholesome Citizens and Spare Time*, Cleveland Recreation Survey, Vol. III.

the preferences of boys in the elementary school grades, next only above music—this in the face of the fact that interest in scientific things is one of the motives that take pupils on into high school work, and that in spare-time reading, and in some of the other forms of recreational activity reported by boys, we find the out-of-school interest in things scientific to be high. There would seem to be possibilities of utilizing these outside scientific interests in such a way as to make the study of science interesting and attractive in the elementary school. So much of school science is of the "pure science" type —unrelated to everyday human usage—that it fails to make a very strong appeal to pupils. By relating the work in this subject closely to the daily observable and current practical applications of science, the schools could probably very markedly accelerate the progress of pupils in science work. Here the spare-time interests of boys might be altogether more largely utilized by the schools, to the advantage both of the class work of the pupils and of their use of spare time.

If drawing, in the definition of the schools, and of the pupils in their reports, includes fine arts work —a study of the means of beautifying man's surroundings in various ways—it should be included among the subjects whose implications for out-of-school life link them up with the use of spare time. But drawing as often taught has no more direct relation to fine arts than penmanship has to literature. If any attempt is made in the schools to use it as

a study which will increase interest and enjoyment in beautiful products of man's design and construction, it would seem to succeed only moderately. It stands about midway of the list for all of the groups of boys except the delinquents, who accord it a much lower place still. There is certainly a large place for the exercise of æsthetic taste in the problems and surroundings of everyday life; and it is the province of the school to cultivate standards of discrimination, and to increase the natural enjoyment which human beings derive from beautiful buildings, furnishings, clothing, utensils, and general home and community surroundings. If school work in fine arts, however designated, emphasized the appreciation side of the subject more than the technical processes pertaining to its production aspect, it might be found that children would enjoy the work in it as much as they do figuring. Arithmetic, it will be noted, stands very high in order of preference among the various groups.

A comparison of the respective orders of preference for boys and for girls makes obvious certain differences in interest. The places of reading and of music in the choices of girls are very much higher than in those of boys, and physical training ranks very much lower. This last is especially serious in view of the importance of physical training in promoting school progress (chap. vi). In contrast to the first place held by manual training in the choices of boys, household arts ranks third from lowest in the preferences of all the girls together.

Whatever is true of the content of these subjects —with the exception of the manual arts studies last named—as referring to boys, should be equally true as referring to girls. Yet in the case of reading, while its content as a school subject is the same for both the sexes, the orders of preference are quite markedly different. This difference may be due in part to the same difference in sex attitudes which accounts for the fact that spelling holds fourth place in the preferences of girls, while it falls to tenth place in those of boys. Mechanical details are more intrinsically interesting to girls than to boys; the relatively higher places, as school subjects, in the preferences of girls, of arithmetic, reading, spelling, drawing, and music —all involving much of mechanical detail—may be noted as in point. On the other hand, it may also be true that the content of the reading-matter in school textbooks is of a kind which appeals more to the interests of girls than to those of boys, and that there is a more direct relation between the school reading and the spare-time reading of girls than exists in the case of boys. Reference to the analysis (chap. viii) of the material which serves the spare-time reading interests of pupils seems to warrant this inference. The primary revelation of these tables, when compared with Tables XI and XII (chap. vi), is that of the disparity between out-of-school interest in reading, music, physical education, fine arts, and applied science, and the attitudes expressed toward the school subjects which make claim upon like kinds of interest. The inference is fair that the

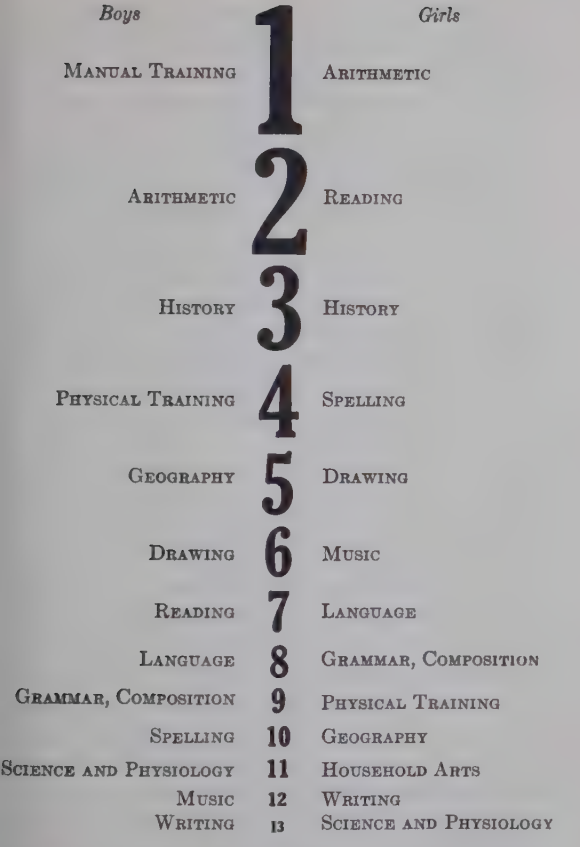


Diagram 4.—Orders of Preference in School Subjects Reported by Total School Groups of Boys and Girls

work of the schools is neither adequately availing itself of the interests revealed in spare-time activities, nor invoking them to secure larger and more satisfying participation in such activities.

Permanence of Early Interests as Shown by Consistency of School-Work Preferences

Comparison of the orders of preference for school subjects among all the school boys and the group of male employees shows the relative order of interests within the two groups to be very nearly the same, except in the case of music, which ranks three places higher for employees; of grammar and composition, which ranks four places lower; and of language, which ranks three places lower for this group. The changes in attitude expressed in these variations of interest may be due to either or both of two causes: changes in the teaching of these subjects in recent years, or changes in interest due to advance in age and out-of-school experience. For the women employees the orders of preference are approximately the same as among the whole group of girls, except in the case of arithmetic, which falls three places lower among employed women; of drawing, which is six places lower; of music, which rises by four places; and of grammar and composition, which also gains by three places. Music ranks higher with both the men and women employees than with the school boys and girls. Grammar and composition ranks lower with the men, as compared with the boys, but has a higher place in the preferences of the women as compared with those of the girls.

In the preferences of the high school boys, the relative places of the subjects are about the same as in those of the public elementary school boys, except in the following cases: manual training ranks two places lower; physical training, two places higher; grammar and composition, two places higher; science and physiology, six places higher; and music, four places lower. The element of selection doubtless accounts in part for these changes, except perhaps in the case of music: in general, the usual high school tends to select those pupils whose major interest is in language and science and who have slighter leanings to manual activities. Increase in age and experience are also probably conducive to changes in interest.

In the preferences of the high school girls, arithmetic ranks five places lower than in the preferences of the public elementary school girls, reading two places higher, history three places higher, drawing four places lower, grammar and composition nine places higher, physical training two places higher, geography three places lower, household arts two places lower, and writing two places lower. Both selection and experience are factors which would help to bring about these changes.

On the whole, permanence of attitude toward elementary school subjects is greater among the groups of employees than among the high school pupils. As a considerable proportion of the former are not high school graduates, the element of selection which is operative in determining the make-up of the high school group would go far toward accounting for this difference.

CHAPTER IV

COMPARISON OF FIRST PREFERENCES IN ELEMENTARY AND HIGH SCHOOL STUDIES

The results of reports assembled for 152 high school boys and 131 high school girls, stating their first preferences among elementary school subjects and also their first preferences among high school subjects, are presented in Tables V and VI.

TABLE V

PERCENTAGES OF FIRST PREFERENCES IN SCHOOL SUBJECTS WHICH REMAINED THE SAME IN HIGH SCHOOL AS IN ELEMENTARY SCHOOL

SUBJECTS	PER CENT OF PUPILS	
	Boys	Girls
Science and physiology	70.0	33.3
Language, grammar and composition	54.5	45.0
History, civics, political economy	52.3	11.1
Arithmetic and other mathematics	40.6	53.8
Music	27.2	37.5
Manual training	23.5	0.0
Physical training	22.2	50.0
Geography	16.6	0.0
Drawing	0.0	57.1
Household arts	0.0	12.5
Reading and literature	0.0	23.1

The respective percentages indicate what proportion of such boys or girls as named a given subject as

their first preference among their elementary school studies reported that subject as first favorite likewise in their high school work. Out of all the boys, for example, who reported that they liked science and physiology best among their elementary school studies, 70 per cent gave this subject first place in preference among their high school subjects as well; of all the girls who liked this subject best in the elementary school, 33.3 per cent liked it best also among the subjects they took in the high school.

The percentages of boys and girls taken together who reported the given subjects as their first choices in both elementary and high school are shown in Table VI (see Diagram 5).

TABLE VI

PERCENTAGES OF FIRST PREFERENCES WHICH REMAINED UNCHANGED THROUGH ELEMENTARY AND HIGH SCHOOL, AMONG BOYS AND GIRLS TOGETHER

SUBJECTS	'ER CENT OF PUPILS
	Boys and Girls
Science and physiology	61.5
Language, grammar and composition	48.4
Arithmetic and other mathematics	44.4
History, civics, political economy	33.3
Music	33.3
Physical training	32.1

THE SUBJECTS WHICH HOLD THEIR OWN

Taken collectively, these tables indicate that a goodly percentage of those children who like science, language, or mathematics best of all their elementary

school subjects tend to like the same subjects best in high school. The probability of holding a permanent place in the school-subject interests of boys is greatest for science, language, and history; in the interests of girls, for drawing, mathematics, and physical training. The probabilities for mathematics are only fairly high where the preferences of the boys are concerned. In the choices of the girls the probabilities are also high for language, and fairly high for music—in the latter case, much higher than they are in the case of the boys. For other subjects, the probabilities of persisting in preference beyond the elementary school period are low.

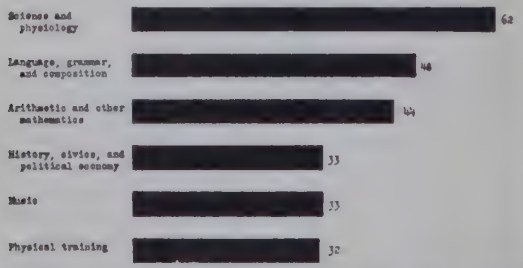


DIAGRAM 5.—SCHOOL SUBJECTS NAMED AS FIRST PREFERENCES IN BOTH ELEMENTARY AND HIGH SCHOOL

The bars show the percentages of pupils naming the respective subjects as their first preferences in elementary school who also named these subjects as their first preferences in the secondary school

For the three subjects which most commonly attain a permanent place in the interests of pupils, there is a large and well-established body of content so

organized for school use that a progressive sequence of work in them is clearly possible, each step forward revealing other possible steps and offering appeals to continued interest. These, too, are the fields in which one must be interested to find the work of the high school attractive and satisfying. In other words, the selection by the high school of pupils from the elementary school is very strongly based upon interest in these fields. Other fields are, relatively speaking, side-lines. Those children whose largest interest is in manual training, drawing, physical training, household arts, or music, in very large numbers drop out of school or go to special schools, or go through the prescribed high school courses with their major interests suspended or balked by such teaching as is offered in these subjects, and with a consequent loss of interest in such studies as are set up as the main features of the conventional courses.

The Subjects Which Lose Favor

The reason for such a state of affairs is obvious if we consider, for instance, that out of the total number of boys who report music as their first preference in elementary school—and this group is in itself slight, as is shown by the low rank (twelfth) to which music is assigned by the votes of all the boys of Table III (chap. iii)—73 per cent demote it to a lesser place among their high school interests. Similarly, music ranks sixth in the choices of all the girls of Table IV (chap. iii); and less than 38 per cent of the high

school girls who name it as first in preference among their elementary school subjects, give it in high school the place which it held in their elementary school choices.

On the other hand, the relatively low place in school work preferences of music, fine arts—under the head of drawing—and household arts, and the apparently slight permanence of interest in these subjects and in manual training as shown by their diminished representation among the first-preference subjects of the high school, might seem at the outset to afford strong evidence that these practical activities and recreational interests have little content with which to make appeal, that they are relatively empty and insignificant. But what of the counter-evidence of the things that children do in their spare time, of the things they do because they have read about them, of the things they like to do as children that adults still like to do?[1] These activities do not relate to language or mathematics, and if they relate to science it is to practical or applied science. The pursuits reported by boys and girls as spare-time interests are motor activities: making things, carrying into physical action the impressions of their reading—reading itself is a predominant spare-time interest—making music or listening to it, visiting, athletics and outdoor sports, playing, gardening, going out for walks or rides; indeed, many of these activities are such as might

[1] These evidences are separately analyzed in succeeding chapters.

be directed to excellent use in courses in industrial and household arts, music, physical education, and literature, as studies to be engaged in for enjoyment and not as inquests or autopsies. That music, art, and physical education, subjects whose chief purpose is recreation and the opening of avenues for increased enjoyment of life, should stand so low in the estimation of children and young people as is shown by these results, is literally tragic. It is evidence that pedagogy, as practiced in these subjects, and ordinary human and humane common-sense are as far apart as the poles. It reveals a wastage of resources—of the interests native to children, and of the activities which occupy their spare time—which might be doubly turned to account by the schools. On the one hand, these are the motives which supply a common meeting-ground for pupils and school, the interests upon which the schools may lay hold to bring the life outside of school to the support of the aims within the school. On the other hand, they are the wholesome, natural interests which the school is charged with developing, cultivating, and refining for their function of enriching the child's everyday life outside of school and his after-school life.

The poor showing these practical and recreational subjects make in the preferences of children is neither an indictment of the boys and girls nor of the activities represented by these studies, but rather of the school treatment of these subjects. When physical education is so taught as to make the child like and

enjoy it, when music is so taught that the more children have of it, the better they like it, and when art is so taught that it really increases the child's love for the beautiful, then these subjects will be able to give a better account of themselves both as means of utilizing the interests and activities of children's spare time, and as methods of enriching these activities.

Both among the spare-time activities of elementary school children, and among the activities of childhood which have come to have a permanent place in the spare-time habits of high school children, play and games, athletics and sports, making things, going to shows, and music all stand high (see Tables XI and XII, chap. vi, and also Tables VII and VIII, chap. v). When we compare these ratings with the preferences of children *among the school subjects representing the school treatment of these interests* (Tables III and IV), we find that they stand very low. The high place of manual training in the preferences of boys is the only exception. Physical education receives fourth choice among boys and ninth among girls. Science studies rank lowest in the choices of girls and eleventh, very nearly lowest, in those of boys. Music is twelfth in preference among boys and sixth among girls. English—other than reading among girls—ranks low with both boys and girls. Yet children report a genuine high interest in physical, constructive and scientific, dramatic, and musical activities. If, then, the school work is such as to create distaste for those activities which are

wholesome, which children normally like, and in which they naturally engage in their out-of-school time, the effect of the school's failure to utilize these activities is not only wasteful but actually destructive. The schools do not even conserve into the high school period the interest manifested in these recreation subjects in the elementary school years. An average of over 50 per cent of those pupils whose first choice in the elementary school is mathematics or science or technical language studies make the same first choice in high school. In the case of music, the percentage of the pupils who adhere to their elementary school first preferences is but 33; in the case of physical training, 32; in the case of reading and literature, 23.

Summary

That the school is not adequately responsive to its twofold obligation—its social responsibility for creating, stimulating, and developing in the school such interests as will foster the most wholesome and most enlarging out-of-school and after-school life, and its pedagogical responsibility for applying the meanings and values of spare-time activities to the development of school interests and activities—is evidenced, according to the findings of this chapter, by its so teaching physical education and music that these are among the subjects least liked in school; by the fact that it does not even preserve for the high school the strong start in interest which these subjects have among many of the pupils of the elementary school;

and in the fact that it does so little to satisfy the needs of those pupils who naturally so much desire constructive and scientific activities. The large attendance of children upon dramatic performances of various kinds, including the moving-picture theater, indicates that the school has a responsibility for developing standards and cultivating tastes in this field of interest also. In the field of fine arts, the study reveals little that has constructive import for recreational life. Drawing holds sixth place in the school-work preferences of boys, and fifth place in those of girls. But drawing as a school subject may have little to do with fine arts. Schools generally are wasteful of the interest of children in form and color, and do relatively little to cultivate or refine an innate love of the beautiful in nature, in architecture, clothing, painting, and sculpture.

CHAPTER V

PERMANENCE OF SPARE-TIME INTERESTS AND ACTIVITIES

One question asked of each of the high school pupils and of the employees was: "What are the things that you liked to do in your spare time as a child that you still like to do?" Tables VII and VIII array these answers for 83 boys and 162 girls of the second, third, and fourth high school years, and for 80 men employees and 105 women employees. The smaller numbers of persons represented in these tables as compared with the corresponding groups of Tables I and II, are due to the relatively smaller number who responded to the question. The adult group gave more nearly full returns than the school pupils.

Of 43 different pursuits mentioned by the boys and men, a large number were named only once; the tabulation shows only those which appeared five or more times among the mentions of the high school boys and employees combined. These 16 activities claim 255 of the total 296 mentions recorded for the 163 boys and men (Diagram 6).

Table VIII shows similarly the number of mentions accorded each of the 15 different activities for which, out of a total of 29 different pursuits, five or

more mentions each are recorded for the 267 girls and women.

TABLE VII

CHILDHOOD ACTIVITIES OF BOYS WHICH RETAIN INTEREST OF ADOLESCENTS AND ADULTS

ACTIVITIES LIKED IN CHILDHOOD	NO. OF PUPILS REPORTING			
	High School Boys 83	Employees 80	Total 163	Per Cent
Baseball	31	25	56	34
Reading	27	20	47	29
Swimming	6	16	22	13
Athletics, gymnastics, sports	15	6	21	13
Making things, work with machinery, mechanical work	4	9	13	8
Drawing, painting, sketching	3	9	12	7
Fishing	2	10	12	7
Games, play	5	7	12	7
Walking, going to the woods, hiking	8	3	11	7
Skating: ice, roller	8	1	9	6
Theaters, shows, movies	7	0	7	4
Music: playing, singing, concerts	2	5	7	4
Riding (other than motoring)	7	0	7	4
Tennis	6	1	7	4
Hunting and shooting	1	5	6	4
Football	4	2	6	4
Total no. of mentions	136	119	255	..

Thirteen of the interests reported are common to both sexes, although their orders in the respective tables differ; reading, making things, music, and skating have rather a higher place in the favor of girls and women than in that of boys and men; baseball, swimming, and athletics rank relatively higher with boys and men.

The reports of the employees, representing a group of men and women entirely beyond the usual school age, are probably more indicative of genuinely

permanent interests than are those of the younger group; yet, because there had come to be, when our

TABLE VIII

CHILDHOOD ACTIVITIES OF GIRLS WHICH RETAIN INTEREST OF ADOLESCENTS AND ADULTS

ACTIVITIES LIKED IN CHILDHOOD	NO. OF PUPILS REPORTING			
	High School Girls 162	Employees 105	Total 267	Per Cent
Reading	103	28	131	49
Making things, sewing, working	46	17	63	24
Skating: ice, roller	41	10	51	19
Music: playing, singing, concerts	25	8	33	12
Games and play	13	13	26	10
Athletics, gymnastics, sports	16	8	24	9
Dancing	11	5	16	6
Swimming	12	2	14	5
Baseball	12	1	13	5
Drawing, painting, sketching	11	1	12	4
Walking, going to the woods, hiking	10	1	11	4
Theaters, shows, movies	10	1	11	4
Playing with dolls	7	0	7	3
Tennis	7	0	7	3
Riding (other than motoring)	6	0	6	2
Total no. of mentions	330	95	425	..

present adolescents were children, larger opportunities for developing some of the interests of children than existed in the childhood of those who are now mature men and women, the interests of the former as here expressed may also represent a high degree of permanence.

EARLY SPARE-TIME PURSUITS OF BOYS ACTIVELY CARRIED INTO ADULT LIFE

Analysis of the facts of these tables in conjunction with those presented in Tables I and II (chap. ii)

will give definiteness to some significant points of evidence. It must be borne in mind that the high school pupils and employees of Tables VII and VIII are naming things they like to do, or are still interested in, without particular accuracy as to how frequently or how recently they have done them.

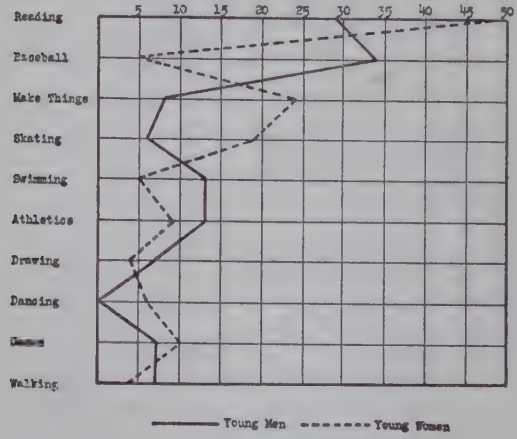


DIAGRAM 6.—CHILDHOOD ACTIVITIES RETAINED AS SPARE-TIME INTERESTS BY YOUNG MEN AND YOUNG WOMEN

The relative popularity of these pursuits is shown by the percentages of persons reporting them. (Only those activities which receive 5 or more mentions have a place in the list)

The persons of Tables I and II are naming more nearly *present participations*. Seasonal considerations, or lack of facilities, might therefore in the first report reduce the number of mentions of an activity—as swimming, for example—below the

minimum 5 per cent, even though it was still retained in interest; while temporary disabilities would be less likely to modify the answers to the later less specific question on retained *likings*, which would be answered in the light of a general comprehensive retrospection.

References to Tables I and II will show, so far as the representative groups of Cleveland school children and employed adults may be held to be typical of any other groups belonging to practically like environments, which of the dominant spare-time pursuits of school children tend to persist actively through the high school years, and which of these are likely to be carried actively into adult life at the stage represented by the groups of employees of the respective tables. Among the boys, the spare-time habits formed in the elementary school period and carried over into the high school period are: going to clubs, to church, to Sunday school, and to shows or the theater, musical activities, reading, going to libraries and museums, playing games, athletics and gymnastics, playing baseball, making collections, riding or motoring, fishing or hunting, skating, taking vacation trips, taking walks, visiting, going downtown, sleeping or resting, having gardens, and having pets. Of these, those that still have a place in adult life are: going to clubs, to church, to Sunday school, and to shows or the theater, musical activities, reading, playing baseball, making collections, taking vacation trips, taking walks, visiting, having gardens, and having pets.

A few of the spare-time activities of the elementary school period stop short of the high school period or have only a partially representative distribution in this age group. Fishing and hunting, represented by a single score, disappear—that is, they are reported by less than 5 per cent of the group; musical activities and going to the library fail of attaining to mention by 5 per cent of the private high school pupils, and skating does not attain to mention by the public high school boys, but does receive a score of just a little over 5 per cent for the private high school group. Four activities—playing basket-ball, going out, dancing, and playing pool or billiards—appear first in the high school period, and all of these fail to survive into the adult period.

Thus, out of 26 recreational pursuits named by boys of school age, four must be regarded as peculiar to the interests of a special period; of the remaining 22, all of which begin in the elementary school period, 13 are mentioned as activities actually participated in by more than 5 per cent of the male group who have reached adulthood. *Not a single new activity makes its appearance in the adult age period.*

Early Pursuits Retained as Interests by High School Boys and Men Employees

On the other hand, in the reports of the high school boys and the male employees on the things they "liked to do" as children which they "still like to do," fishing and hunting and shooting, music, skating, and baseball all reappear, but with relatively

low scores; in addition, drawing and painting and sketching, tennis, football, and swimming attain to mention for the first time. None of these, however, are activities that have been begun only in the later periods. They are pursuits which even in the elementary school period are in the nature of things limited to such children as have special abilities, as in the case of drawing and painting and sketching; or they are such as are restricted to opportunities of season rather remote from the time at which the reports were made, and, therefore, have not been mentioned frequently enough to appear in those reports of present and actual pursuits. As a matter of fact all of the activities reported in Tables VII and VIII were mentioned in some degree in the answers upon which Tables I and II are formed, with the exception of tennis and football. Very probably many of these school children play tennis and football, but they do so when outdoor conditions are quite different from those of March and April. Similarly, unseasonableness has reduced the scores for swimming, as already pointed out.

Early Spare-time Pursuits of Girls Actively Carried into Adult Life

Among the girls and women, the activities which are reported (Table II) in the elementary school period and which persist actively through the high school period are: going to Sunday school, musical activities, going to libraries and museums, reading, writing, playing games, going downtown, going out, taking

vacation trips, playing baseball, making collections, making things, going to church, visiting, going to shows or the theater, dancing, taking walks, going to clubs, having gardens, and having pets. Entertaining and riding and motoring are reported for the elementary school period only among private school pupils, and going to parties and picnics is reported only by public school girls.

Skating is the only activity reported by elementary school girls which has lapsed entirely among the pupils who have reached the high school stage. Going to the library, going out, making things, and going to parties and picnics no longer have a place in the recreation of private high school girls. Playing games and writing fail to appear in the reports of public high school girls. Playing basket-ball, going to dinners or teas, and sleeping or resting for recreation do not make their appearance until the high school period. Of these, going to dinners and teas and playing basket-ball seem to be restricted to the high school period, while the spare-time rest habit is carried by a very slight percentage into the adult-life period.

Thus, of the 24 recreation habits established in the elementary school life of the girls, exactly one-half survive definitely into adulthood: reading, going downtown, taking vacation trips, going to church, visiting, going to shows or the theater, dancing, taking walks, playing baseball, making collections, having gardens, and having pets; three more, going to Sunday school, entertaining, and musical activi-

ties, belong also to the recreation activities which continue into adult life, though they attain to mention by narrow margins. Among the girls and women, therefore, as in the case of the male group, it is important to note that *no new or additional pursuits emerge in the adult-life period.*

Early Pursuits Retained as Interests by High School Girls and Women Employees

Apparent inconsistencies of reporting appearing in the scores of the two respective tables for girls and women (II and VIII) may be explained on the grounds which modify the data of the two tables for boys (I and VII). Skating, as a continued interest rather than a present activity, does appear in Table VIII, with a very high score, for high school girls; so also, making things, which only the public high school girls have reported in Table II as carried over from the elementary school period. Games and play are also reported here with moderate scores; writing, going out, and going to parties and picnics are not re-established even in these reports on interests. On the other hand, athletics and gymnastics, swimming, drawing and painting and sketching, and playing with dolls are first mentioned with admissible scores in these reports of adolescent and adult groups. The last may be a childhood interest which bulks larger in retrospection than in participation, or may accidentally have fallen disproportionately within that segment of the high school group of Table II which the smaller group of Table VIII

represents. This latter is a consideration which applies to all the groups for all the activities. The reports on the other activities must be considered as having been affected by influences similar to those which modified the reports on the same activities among boys and men. Playing basket-ball and going to dinners or teas are named in the reports of Table II by high school girls, and sleeping and resting by both high school girls and employees, yet they do not appear in Table VIII; the scores for all of these in Table II are very slight, however, and they may belong to those members of the groups of Table II whose reports do not appear in Table VIII.

The conclusion is clear that, for both men and women, the recreation habits formed early in life are the habits on which their later recreational life depends. But, significant as this is for a consideration of what constitutes the basis upon which adult recreational life must maintain itself, there is an even more challenging significance in the fact that though a fair half of the activities of childhood have dropped out of the lives of these adults, and though those which remain show a lowered intensity, no new activities come to take the places of those which have lapsed. It would seem that such interests as do not have a chance of establishing an early hold on the interest of the individual do not, so far as the evidences of these reports go, ever make a place for themselves in the habits of his mature years.[1] The

[1] See *Wholesome Citizens and Spare Time*, Cleveland Recreation Survey, Vol. III.

nature of the lost activities, and the reduced participation in those that survive, have bearing on another aspect of the problem which will be discussed later in this chapter.

Influence of Early Surroundings on Specific Permanent Recreation Interests

Comparison of the interests and activities of members of the adult group who spent their childhood in the country or in small villages, with those of such members as have always lived in Cleveland or other large cities, yields convincing evidence regarding the permanence of attitudes and interests which are developed early in life. Without exception, the interest in gardening, having pets or animals, and taking vacation trips is greater among those individuals who have lived in the country than among those who have lived in the city. In other words, these rural-life interests, by reason of the fact that opportunity for their formation and development was early provided in the lives of the former group, have had an initial advantage for lack of which the same interests have been set back in the lives of the urban group. For each activity, also, the difference is more pronounced as between the urban and rural groups of women than between the two classes of men (see Table IX, and Diagram 7).

Even if it is true, as may be possible, that among these employees those who have lived in the country represent a select group possessing more initiative and force of purpose than those who have al-

ways lived in the city, the fact that these particular interests maintain themselves in the city is no less significant as an evidence of the permanence of attitudes, interests, and habits developed in childhood.

TABLE IX

CORRELATION OF THREE SPECIFIC SPARE-TIME ACTIVITIES OF ADULTS WITH CONDITIONS OF COUNTRY AND CITY RESIDENCE

CONDITION OF RESIDENCE	No. of MEN 112	No. of WOMEN 102	MEN	WOMEN
			Per cent having gardens	
Have lived in the country	43	49	48.8	57.1
Have not lived in the country	59	62	42.4	38.9
			Per cent having pets or animals	
Have lived in the country	43	49	46.5	55.1
Have not lived in the country	59	62	38.9	38.9
			Per cent taking vacation trips	
Have lived in the country	43	49	69.8	61.2
Have not lived in the country	59	62	55.9	45.8

INTERESTS OF CHILDHOOD NOT RETAINED IN ADULTHOOD

The high school pupils and employees were also asked to state some of the things which they cared for as children which they no longer liked. The boys and men reported 62 different activities, with a total of 146 mentions; but of these only seven different activities were mentioned by five or more. The girls and women reported 55 different activities, with a total of 226 mentions; and of these also only seven received five or more mentions. Each of these

lists of seven activities is shown for the respective groups in Table X.

That the number of childhood interests which are reported as not persisting is relatively so small may be due in part to the fact that activities or interests which do not maintain their place in interest are more

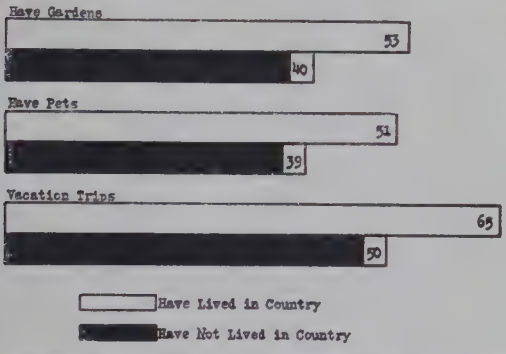


Diagram 7.—Influence of Urban and Rural Childhood Environment on Three Specific Interests Retained in Adult Life

The bars, showing the percentages of men and women of the two groups who report these pursuits, indicate the larger place accorded the respective activities in the lives of those who have had a country childhood

easily forgotten than those which persist. As types of spare-time activity, those which are here reported as no longer in favor—only *some* of these are called for in the questionnaire—are chiefly the interests and activities which are properly termed childish.

Certain other more important spare-time occupations, however, have perforce a place in such an

enumeration of interests fallen into disuse, the indications of this table notwithstanding. The very real falling off of interest in the theater among high

TABLE X

ACTIVITIES OF CHILDHOOD WHICH DO NOT RETAIN INTEREST IN ADULTHOOD

INTERESTS NOT RETAINED	NO. REPORTING		
	High School Pupils	Employees	Total
A. OLDER BOYS AND MEN			
Marbles	13	8	21
Playing cowboy, Indian, soldier	14	0	14
Toys	6	3	9
Games and play	5	3	8
Ball	1	4	5
Fishing	0	5	5
Theaters and shows	3	2	5
Total no. of mentions	42	25	67
B. OLDER GIRLS AND WOMEN			
Dolls and doll houses	71	9	80
Games and play	23	6	29
Jumping rope	13	0	13
Making mud pies	11	1	12
Toys	5	2	7
Playing house	6	1	7
Fairy tales	5	0	5
Total no. of mentions	134	19	153

school pupils and adults, and the fact, as shown here and in the fuller evidences of the preceding reports, that music, outdoor sports, gardening, and some other open-air activities receive only occasional votes, are to be regarded as unfortunate, as these are interests which, when appropriately built upon,

present wholesome recreational resources for adult life—some of which especially are vitally needed for offsetting the encroaching sedentary tendencies of later years.[1]

Evidences of Permanent Shrinkage of Interests

In this regard Tables I and II make plain a situation which constitutes a serious challenge. More significant even than the reduced range of activities shown for employed adults are the reduced numbers of persons reporting the respective activities. Going to clubs, reading, playing baseball, making collections, taking walks, visiting, and having gardens and pets are reported by the men employees in percentages smaller than those of any other group reporting the given activities. Taking vacation trips is reported by a percentage of the employees which falls below the score of the elementary school boys for this activity. Going to shows or theaters is reported by a percentage of the employees about equal to the percentage reporting this activity among the private elementary school pupils, which falls far below the percentage of the public elementary school pupils, and is just a little higher than the score of the delinquent group. Likewise, the score of the men employees for church-going is only next above that of the private elementary school pupils, who in this case also fall by nearly half below the other groups.

[1] Cf. *Wholesome Citizens and Spare Time*, Cleveland Recreation Survey, Vol. III.

None of these adult activities attain a percentage of mentions which is comparable to that for the corresponding activity among the high school groups.

The forms of recreation which, so far as a definitely present participation in them goes, seem to have dropped out of the life of these adults are: going to the library, playing games, athletics and gymnastics, riding or motoring, fishing or hunting, skating, playing basket-ball, making things, going out and going downtown, dancing, playing pool or billiards, and sleeping or resting. An occasional or remembered participation in some of these is indicated by the inconsiderable percentages listed for them in Table VII.

As regards the numbers reporting the activities of the girls and women of Table II, the situation parallels that shown for the boys and men. In two of the activities—taking vacation trips, and taking walks—the employed women are represented by groups equal or comparable in number to the graded elementary school groups. For going to church, their score is most nearly like that of the delinquent group, which exceeds that of the graded elementary school group and is more nearly like that of the public high school group. Their score for dancing likewise is nearest those of the high school groups, who exceed the public elementary school girls but fall far below the private elementary school group. For making collections, the scores of the public elementary school girls and the employees are most nearly alike; on the whole, the percentages of all the

groups for this activity are fairly alike, for all but the delinquents, who make no collections, and the private elementary school girls, who exceed all the rest. *As regards the majority of the activities, the numbers of the adults reporting them, therefore, have fallen considerably below the numbers of the girls reporting the several activities in the high school period.*

Conclusions Significant for the Schools

The findings of this chapter in general indicate, so far as the facts made available by these reports of typical groups of school children in Cleveland warrant us in forming any conclusions, that the only spare-time habits which come to have a permanent place in the after-school life of the individual are those which are acquired early in life—during the elementary school period, in largest part; and that, for such of the early manifested interests as are dropped from the later life of the individual, no substitutions are made, by way either of new pursuits or of more intensive or increased participation in those which are retained.

Here would seem to be the school's opportunity *par excellence* not only for exercising an invaluable mentorship in directing the development and enlarging the relationships of discovered interests, but also for initiating and fostering other desirable interests which by the impetus of their start would have a firm chance for permanence and help to assure a rounded-out and purposeful recreational later life. But the evidences regarding school pre-

ferences (chaps. iii and iv) show that where the school has made a routine attempt to build upon presupposed inclinations—as the liking for music, for scientific studies, for decorative arts—it has not only not succeeded in maintaining these interests at their first level but has come near to nullifying them. Where such liking has persisted in the out-of-school life of the individuals concerned, it seems clearly to have been aside from and in disregard of the indifferent or discouraging face which the school version of these interests has presented. No other agency at all comparable to the school for potentiality of influence came to take up the gage of this opportunity; the school was the only one equipped and in line for the task; and there is no inherent difference in nature between the retained and the discarded interests which makes it unreasonable to say that the measure of the persistency by which the former have survived is the measure of the opportunity lost in those that have dropped out. The self-same power for growth and self-maintenance in these discarded pursuits, or in the energies of these applied to other new interests, might equally well have been made to contribute to the full fruition of personality.

PART II

WHAT SPARE-TIME ACTIVITIES DO AND MIGHT DO FOR SCHOOL WORK

CHAPTER VI

SPARE-TIME ACTIVITIES OF ACCELERANT, NORMALLY PROGRESSING, AND RETARDANT PUPILS IN RELATION TO SCHOOL PROGRESS

As the most direct means of ascertaining whether any significant relationship exists between recreational activities and school progress, 50 accelerant children (25 boys and 25 girls), 50 retardant children (25 boys and 25 girls), and 100 children making normal progress (50 boys and 50 girls), were selected, on the basis of their ages and grades in the school records, and their spare-time activities charted. The data presented includes the answers of all these pupils to specific questions, their statements in the compositions they wrote about their spare-time occupations, and their calendars of spare-time pursuits for one school day, one Saturday, and one Sunday.

The 100 cases of at least two years' acceleration or retardation are the selection of all such pupils

as they came, in the records, among 1,916 children —1,356 public school and 560 private school pupils. The 50 boys and 50 girls rated as normal—progress in school was considered just normal when a child in the sixth grade was 12 years old, a child in the seventh grade, 13 years old, a pupil in the eighth, 14, and so on—equaled, in the numbers taken in each grade and each school, the combined numbers of the accelerant and retardant pupils taken from the respective grades of the respective schools, so that the grade distribution of the normally progressing pupils corresponds exactly to that of the accelerant and retardant pupils (see Table XIV).

How the Scores Were Derived

The scores given for these three groups in Tables XI and XII represent totals of "mentions" obtained for each activity respectively by scoring each instance of its mention by any child, in the several forms of returns, as one point; these totals were then reduced to percentages on the bases of their respective groups. In this form they present arrays of resultants for the comparison of a normal group with accelerants on the one hand, and with retardants on the other, with respect to the *intensity* with which children of the respective groups engaged in any of the activities named.

Two exceptions to this method will be noted. The first concerns those activities and circumstances about which information was given in the form of answers to direct questions: these include playing

baseball, having collections, caring for gardens, going to summer camps, taking vacation trips, having pets or animals, and the question as to whether the mother works for pay. In these cases, the percentages represent both the number of mentions and the number of pupils mentioning, since here the two are identical. The second exception applies to the numbers of books and magazines read, and the numbers of games played. For each of these activities lists of titles and names were given by each pupil. These lists were totaled numerically and the average numbers of books and of magazines read per pupil, and of games played per pupil, were respectively found; the figures of the tables represent these averages.

Within the tables as a whole each of the groups may be compared to the others with regard to any given activity, and within any group also the prominence of the several activities may be compared, with the exception of the three for which the average scores discussed above are given. These averages have meaning only in the comparing of groups with one another. The percentage totals of Section A of the tables are merely the arbitrary sums of the scores for the various activities and have no meaning aside from their use for comparison with each other as scores of total activity. As in Tables I and II, Section A presents scores for activities as such, and Section B presents scores with regard to influences bearing on recreation which, while they involve both volitional and directed activity, are better

TABLE XI

SPARE-TIME PURSUITS AND HOME CIRCUMSTANCES OF ACCELERANT, NORMALLY PROGRESSING, AND RETARDANT (Y

(In Percentages of Mentions)

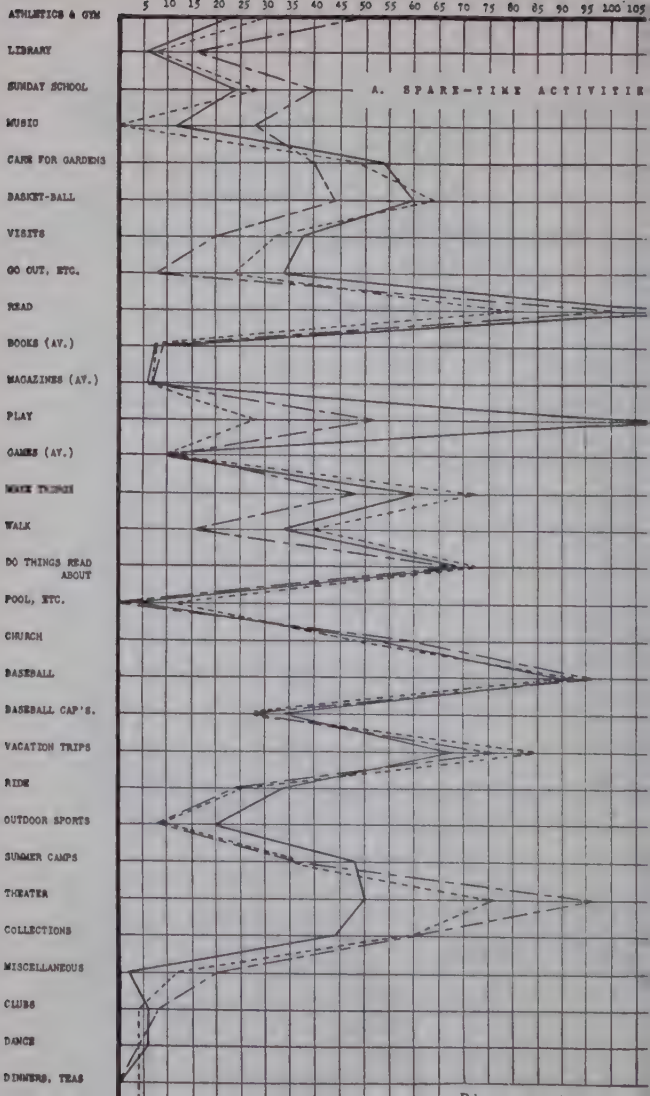
ACTIVITIES AND CIRCUMSTANCES	PER CENT OF MENTIO		
	Accelerant 25	Normal 50	Ret
A. SPARE-TIME ACTIVITIES			
Athletics and gym	48	22	
Library or museum	16	8	
Sunday school	40	24	
Music	28	12	
Care of gardens	40	54	
Basket-ball	44	30	
Visiting	20	38	
Going out or downtown	8	34	
Reading	100	118	
Books (av.)	9	8	
Magazines (av.)	7	6	
Play	52	112	
Games (av.)	12	10	
Making things	48	60	
Walks or hikes	16	34	
Doing things read about	67	68	
Pool or billiards	0	2	
Church	60	54	
Baseball	96	90	
Baseball captains	28	34	
Vacation trips	76	68	
Riding	24	34	
Outdoor sports	8	20	
Summer camps	36	48	
Theater	96	50	
Collections	60	44	
Miscellaneous	20	2	
Clubs	8	8	
Dancing	4	8	
Dinners or teas	0	0	
Writing	0	0	
Total scores	1,070	1,124	1,04
B. HOME CIRCUMSTANCES			
Fathers dead	4	12	
Mothers working for pay	0	12	
Running errands	24	10	
Work about home	24	48	
Work outside of home	28	14	
Having gardens	48	66	
Having pets	32	52	

TABLE XII

SPARE-TIME PURSUITS AND HOME CIRCUMSTANCES OF ACCELERANT, NORMALLY PROGRESSING, AND RETARDANT GIRLS

(In Percentages of Mentions)

ACTIVITIES AND CIRCUMSTANCES	PER CENT OF MENTIONS		
	Accelerant 25	Normal 50	Retardant 25
A. SPARE-TIME ACTIVITIES			
Athletics and gym	8	6	0
Basket-ball	48	34	28
Outdoor sports	20	12	12
Care of gardens	60	36	40
Going out or downtown	64	34	32
Reading	120	80	92
Books (av.)	14	13	12
Magazines (av.)	7	6	6
Writing	16	4	4
Play	68	62	36
Games (av.)	15	12	14
Summer camps	24	34	32
Walks or hikes	20	38	36
Making things	48	62	64
Music	52	50	28
Library or museum	12	12	4
Sunday school	36	40	16
Theater	44	64	54
Conventions	20	28	40
Church	32	30	52
Baseball	32	28	33
Baseball captains	4	2	4
Vacation trips	76	82	68
Doing things read about	76	72	50
Riding	12	22	8
Visiting	44	68	52
Miscellaneous	24	0	12
Dancing	4	4	8
Dinners or teas	4	6	8
Clubs	0	2	4
Total scores	1,004	941	909
B. HOME CIRCUMSTANCES			
Fathers dead	8	10	8
Mothers working for pay	8	6	12
Running errands	24	8	56
Work about home	80	80	96
Work outside of home	4	0	28
Having gardens	76	48	52
Having pets	40	50	36


5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105
A. SPARE-TIME ACTIVITIE
ATHLETICS & GYM
LIBRARY
SUNDAY SCHOOL
MUSIC
CARE FOR GARDENS
BASKET-BALL
VISITS
GO OUT, ETC.
READ
BOOKS (AV.)
MAGAZINES (AV.)
PLAY
GAMES (AV.)
WALK
DO THINGS READ ABOUT
POOL, ETC.
CHURCH
BASEBALL
BASEBALL CAP'S.
VACATION TRIPS
RIDE
OUTDOOR SPORTS
SUMMER CAMPS
THEATER
COLLECTIONS
MISCELLANEOUS
CLUBS
DANCE
DINNERS, TEAS

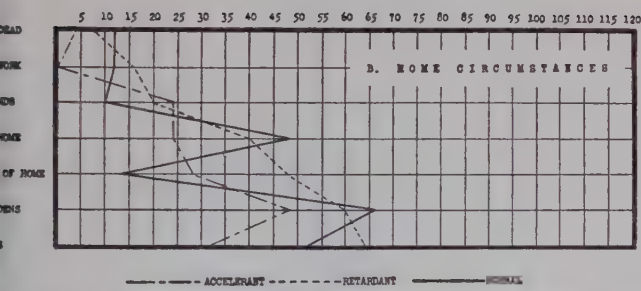


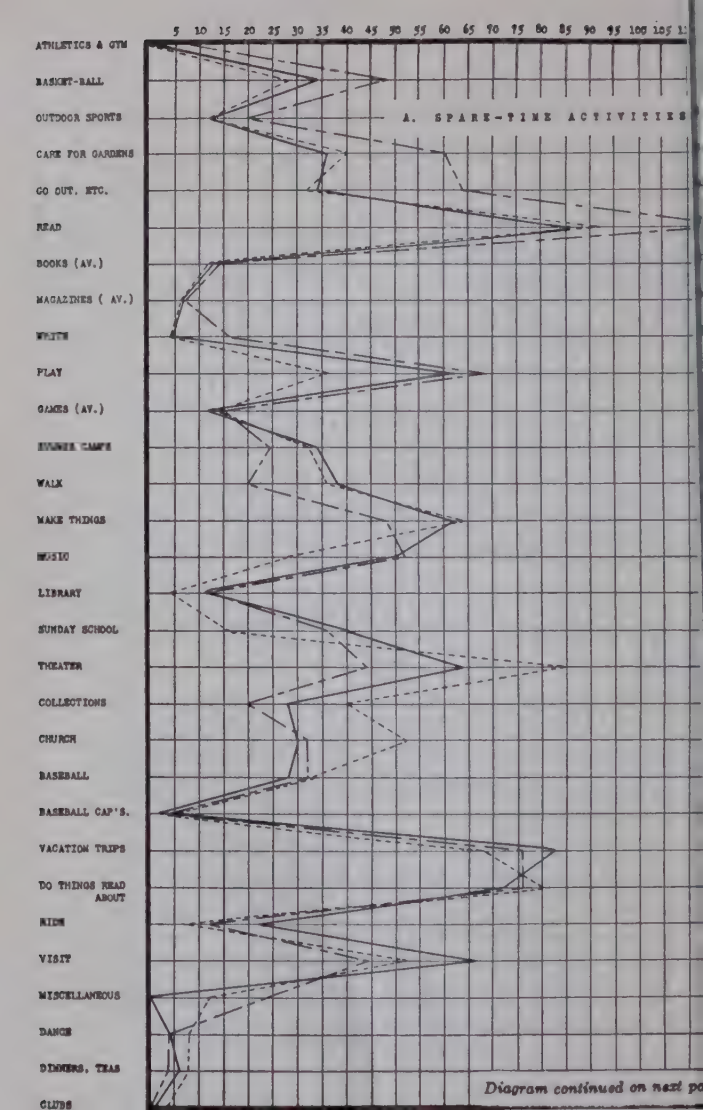
DIAGRAM 8 (*Continued from p. 86*).—SPARE-TIME PURSUITS AND HOME CIRCUMSTANCES OF ACCELERANT, NORMALLY PROGRESSING, AND RETARDANT BOYS

The relative positions of the points indicating percentages of mentions of each item show the proportionate intensity, in the spare-time interests of the respective groups, of each of the activities reported in Table XI, Section A, and the frequency, for each group, of the circumstances listed in Section B of the table

regarded as elements of social and economic background (see Diagram 8, pp. 86–7, and Diagram 9, pp. 88–9).

NATURE OF DIFFERENCES REVEALED BY THE SCORES

From the quantitative totals of these tables, giving the total number of mentions for all the activities, it is seen that in *total activity* there is no important difference between the accelerant and retardant groups, or between either of these and the normal group. The retardant girls show numerically the most definitely smaller score, but there is some probability that the accelerant girls report with more minute discrimination their more sustained application to the activities in which they excel,



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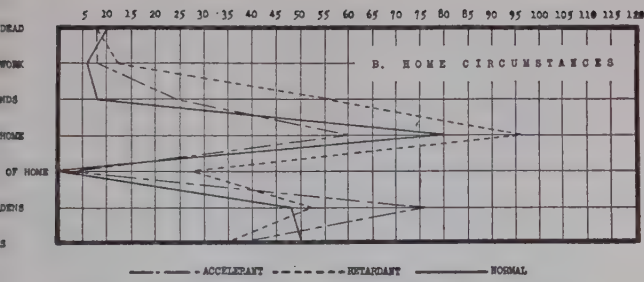


DIAGRAM 9 (*Continued from p. 88*).—SPARE-TIME PURSUITS AND HOME CIRCUMSTANCES OF ACCELERANT, NORMALLY PROGRESSING, AND RETARDANT GIRLS

The relative positions of the points indicating percentages of mentions of each item show the proportionate intensity, in the spare-time interests of the respective groups, of each of the activities reported in Table XII, Section A, and the frequency, for each group, of the circumstances listed in Section B of the table

and in which the application of the retardants is likely to be more desultory and less differentiated. All three classes of pupils are occupied almost equally, therefore, but the activities of the several groups differ in kind. In Section B, differences are marked and important. The retardant pupils, especially the girls, are much more largely engaged in work, with the exception of work about the home for boys, in which the normal boys show a higher score; this fact is probably related to a pedagogical home attitude about work for boys which has set up the tradition of "chores" for the well-regulated boy. But despite these circumstances, the total scores of activity in other forms for the retardant pupils, and the number of pursuits in which they

engage, approximate very nearly the scores of both the accelerant and normal groups. The fundamental differences lie in the specific forms of interests and pursuits which are dominant in the respective groups.

In point of mere pursuits as such, then, we may conclude that we have as much capital to invest, and invested, in the one group as in the other. No fact more promising from the standpoint of the school could be established, if it be found that the character of this capital is such that its appropriate investment may be made to yield large returns in school progress for all the pupils concerned.

An analysis of the specific spare-time pursuits listed in Section A of the tables reveals qualitative differences of much significance. On the whole, a careful scrutiny of the pursuits reported by the respective groups shows that there is a marked coincidence of the dominant spare-time activities of the accelerant pupils with interests and activities stressed by the schools. The dominant spare-time pursuits of the retardant pupils are almost as markedly seen to be activities not stressed by the schools.

The various activities, viewed with respect to their effect or lack of effect upon school progress, fall into several distinct groupings which suggest the disabilities or disinclinations and the leanings of the three types of pupils with regard to the several pursuits. This alignment brings out practically the same implications for girls as for boys, although some of the specific activities illustrating these general conditions are different.

I. Activities Not Causally Related to School Progress

A number of the activities reported, though the percentages are of value as showing how much or how little the given occupation engages the time of children making a certain rate of school progress, must be regarded, on the basis of the evidence presented, as incidental to and causally unrelated to school life.

1. *Activities common to all groups.*—For playing baseball (and being baseball captains) the scores are uniformly high for all the groups of boys and therefore practically neutral in distinguishing the groups (i. e., for baseball: accelerants, 96; normal pupils, 90; retardants, 92). These are things which constitute a part of the out-of-school life of all boys, and show, so far as these records go, no differentiating effect on school progress.

In the case of the girls, the scores for playing baseball, for doing things read about, and the averages for numbers of books read are too nearly alike to serve as bases for differentiating the three groups.

2. *Activities represented by inconsiderable scores.*—Going to clubs, dancing, going to dinners or teas, and writing are reported by percentages too small, among all the groups of boys, to serve as bases of deduction. There may be some related significance in the fact that for the last two activities the retardant boys are the only ones who have any scores at all, and in the fact that the first of these may be referred to a type of social-mindedness, and that the second, slight as it is, is an index of a special kind of

impulse to self-expression. The home circumstances implied in the fact that the father has died appear in too few reports to be helpful in this analysis.

Among the girls, going to clubs, going to dinners and teas, dancing, being baseball captains, and the circumstance that the father is dead are likewise reported in percentages too small to signify.

3. *Usual pursuits of normal pupils.*—In certain activities which may be classified as the current or accepted spare-time occupations of boyhood, the scores of the normally progressing boys exceed those of both the other groups. The inference seems just that those boys whose school-work capacities mark them as being most nearly adapted to what the schools set up as norms of school-work content and of progress, also most generally conform in their play-time habits to what have come to be regarded as the norms or general types of spare-time occupations for boys. Among these activities are outdoor sports, riding, and going to summer camps. For these pursuits the scores of the other two groups are equal, so that there is no indication of a relation between these activities and the accelerated or retarded school progress of the boys who report them.

To this group of the activities of boys belong also, when viewed in the large, reading, play, going out or downtown, and, as stated above, working about the home. Broadly considered, the reports of the three classes of boys show no appreciable relation between participation in these activities and acceleration or retardation in school. Still, viewed strictly as

quantitative reports, reading and play may be referred also to a classification of interests which have a certain degree of relation to school progress, in that comparative lack of them is associated with retardation (see III, 3, below); and going out or downtown and working about the home belong to a set of activities from which the accelerants as a class seem to abstain (II, 3, below).

The activities of girls which fall into this classification of conventional or usual pursuits are riding or motoring, visiting or calling, having pets, and playing.

4. *Pursuits not usual among normal pupils.*—Going to shows or the theater (here most often the moving-picture show) does not lend itself to appraisal as an influence affecting the school progress of boys. Whether this activity, from a general standpoint, is a help or a hindrance to school progress depends upon several elements. If the quality of the pictures is wholesome, and if attendance is under sanitary conditions and not so frequent as to cause neglect of other more wholesome activities, it may be an asset for school progress by reason of the mental stimulus and the pleasurable tone which it affords; otherwise, it may be a source of serious interference. But the percentage scores of the tables for attendance upon shows and the theater show no apparent relation to advance in school.

The scores for all three groups of boys are high; the accelerant boys lead, the retardants score in second place, and the normal boys have the lowest

score. It may be that the tastes of the accelerant boy include a wider range of types of theatrical entertainment, and a corresponding attendance upon more kinds of performances; but in the absence of data as to the kind of shows and theaters the respective groups attend, the differences in score between the accelerant and the retardant groups can be said to signify nothing.

The fact that the normally progressing boy scores lowest may indicate that among this group of boys —who show the greatest amount of participation in the normal out-of-door activities of boys, and likewise a type of mind most uniformly in accord with the requirements of the conventional school program —going to the theater or shows is not a conventional practice. But the record of mere attendance presented in these reports, whatever its conditions and qualities may be, offers no clue as to its influence on the school life of the different groups of boys.

The reports on making collections show for boys a similar kind of relation, or lack of relation, as far as school progress is concerned. The low score for the normal group indicates that this is not one of the usual activities of boys; the scores for the two other groups are definitely higher, and identical. The indication is that keen activity in an unusual occupation of this sort, involving a specialized and sustained kind of interest, goes with both the accelerant and retardant school types; but, as between the two groups, the kinds of collections, and the kinds of appreciations and motives involved, may be utterly

different. On this point there is no evidence, nor is there any evidence to show that such interests in any way impede or promote school progress.

The reports of the boys on the average numbers of magazines they read, taking vacation trips, and work outside of the home also illustrate this kind of situation, with the retardants, however, showing for the two last-named activities a participation decidedly in excess of that of the accelerants (see also III, 2, below).

For girls, running errands, and the averages for numbers of games played, fall into this division.

As a further aspect of this tendency, among the normally progressing children, to conformity in recreational usage, both the girls and boys of the normally progressing groups may be said to show, in the fact that they fall below the other two groups in their reports on miscellaneous occupations, an unspecialized or conventional attitude of mind: they have scarcely any or no activities to report which do not fit into the categories of commonly recognizable and readily definable pursuits. The accelerants and retardants, both boys and girls, on the contrary, reach out to less strictly classifiable, often experimental, pursuits.

Clearly here too there is no connection between use of spare time and school progress; there is no clue as to whether like or diverse miscellaneous pursuits occupy accelerants and retardants; but it is interesting to note that the relative frequency of mention—the retardants report about one-half

as many miscellaneous occupations as the accelerants—is the same for boys as for girls.

II. Activities Related to Acceleration in School Progress

1. *Degree of interest in direct ratio to rate of school progress.*—The degree of spare-time interest and participation in music shown among the several groups of boys seems to be in direct, though of course not measurable, ratio to the rate of school progress indicated for the respective groups; i. e., total lack of musical interests goes with retardation, a moderate participation goes with normal school progress, and a definitely greater intensity of interest and work in music goes with acceleration. Church-going is another of the interests of boys which shows scores in this relation.

Among the activities of girls, playing basket-ball is reported in percentages showing this order of relation.

2. *Intensive interests associated with accelerated school progress.*—A like intensity of interest in certain other pursuits of boys seems to go with acceleration: this is seen in the case of Sunday school attendance, athletics and gymnastics, and going to libraries and museums, the averages indicating numbers of books read and of games played, and the special pursuits classed as miscellaneous (see also I, 4). The inclusion of Sunday school and church attendance in a discussion of spare-time interests is justified on the ground that these are social as

well as religious in their appeal, and because attendance upon them is today so largely dependent upon the child's own interests. The interest which inclines a child to a liking for Sunday school is closely akin to the interest or interests which make a pupil like the secular school.

But as for these activities the scores of the normal boys and retardants are about equal, it cannot be said that either participation in these pursuits or deprivation of them is a factor in retardation; the retardation of the boys who report these activities must be traced to some other cause.

Among the girls, acceleration in school progress is accompanied by intensive interest in reading (including the number of magazines read), writing, going out or downtown, outdoor sports, athletics, having gardens, and caring for gardens—implying definite responsibility and active work in the care of them—and the miscellaneous pursuits.

3. *Non-participations associated with accelerated school progress.*—Among boys again a negatively parallel situation is found with respect to playing basket-ball, having gardens and caring for gardens, and visiting or calling. A very restricted degree of, or practical abstinence from, participation in these goes with accelerated school progress; but even a considerable participation in them does not account for retardation, for the normal boys and the retardants report these pursuits about equally. To this classification belong also work about the home, and the rather indefinite activity listed as "going

out or downtown," already named as practices incident to normal boyhood (I, 3, above).

The pursuits among girls which show an interaction of this sort with school work are going to summer camps, going on walks or hikes, and making things.

III. Activities Related to Retardation in School Progress

The retarded pupils show, so far as the reports of these tables go, exactly converse aspects of the relationships pointed out for accelerant children.

1. *Degree of interest in inverse ratio to rate of school progress.*—For certain activities, the degree of participation reported is in unmistakably inverse, though not measurable, ratio to school progress: the accelerant shows the lowest score, the child who reports a larger participation than the latter, makes only normal progress, and the child who shows the greatest degree of interest in a pursuit of this order is definitely retarded in school. Here are interests which either run contrary to the interests of the school, or else the schools are unmindful of or pass by these interests of their pupils, who, for their part, the more intensely they pursue these out-of-school absorptions, show the less response to, or effort or ability to keep up with, the lines of interest which the school sets up as its objectives. In this classification, among the interests of boys, are making things, going on walks or hikes, and having pets or animals. The home circumstances implied in the

fact that the mother works outside of the home for pay are also aligned with retardation in this relation: the greatest number of mentions of this factor comes from the school group making the least satisfactory progress.

Among the girls, the circumstances indicated in the fact that the mother works for pay show this order of relation. Work about the home on the part of the girl herself also belongs here, as well as going to the theater and making collections.

The very fact that these last two interests fall into the present classification, and that they fall together into the distinctly other classification into which they do fall for boys (I, 4, above) is significant. It seems almost to indicate that if there is a difference between the kinds of theater-going indulged in by accelerants and retardants, the different suggestibility of the girl unites with the less desirable kind of emotional appeals—less desirable at least from the standpoint of school-progress considerations—to effect her retardation in school. The boy is not so affected, whatever the appeal.

Making collections, again, is reported by twice as many retardant as accelerant girls. Whatever the kind of initiative may be that impels a child in the direction of making collections, the accelerant girl in this respect ranks with the normally progressing girl in an alignment which on the whole shows a conventional lack of such an interest; the retardant girl shows, on this point, though in lesser number, the mental attitude of the unusual boy.

For girls, however, this activity increases in deg of interest from accelerant to normal to retarda or, in other words, in reverse order from that acceleration in school progress; the girl who repo most of it has the least satisfactory school reco while the child who participates least in it shows t greatest progress in school work. Thus the me activity of making collections, whether or no th differ in kind for the different groups, carries wi it for the girl a liability to retardation in scho while the effect of this non-conventional pursuit o the boy is not traceable.

2. *Intensive interests associated with retarded scho progress.*—Unusually intensive or excessive pa ticipation in certain other pursuits goes with re tardation: among these, for boys, are playing poo or billiards, doing things read about, and workin for pay outside of the home. A relatively norma measure of participation in them, however, canno be charged with deflecting school progress, inasmuc as the accelerant boys also report these activities in a degree approximating that shown for the nor mally progressing boys; for playing pool and bil liards, accelerants and normal pupils show equally inconsiderable scores. For work altogether (includ ing work both in and outside of the home and run ning errands, and especially for work outside of the home considered separately), the retardant pupils show relatively preponderant scores. But a clearly greater activity in running errands and work out side of the home is reported by accelerant than by

normal boys; this might indicate that capacity for a somewhat larger than ordinary degree of responsibility in practical work may be based on the same qualities that make for ability to achieve accelerated school progress. Activities which show scores in this latter relation might be interpreted as aiding in accounting for both acceleration and retardation: for acceleration in that these pursuits, when they do not claim an over-large share of the pupil's time, may be regarded as furnishing wholesome balance for that application necessary in rapid school progress; for retardation, when they interfere with such application by reason of the pupil's excessive participation in them.

Activities of this classification among girls are going to church, and the two remaining activities of Section B which may be classed, as for the boys, as downright work—running errands, and working outside of the home for pay. The situation with respect to these latter activities among girls parallels the implications pointed out for boys in these activities. The implication with respect to church-going may be twofold or threefold: the retarding excess may be charged to the more conspicuous social bent which, as has been pointed out, plays a part in the interest involved in this activity, and which seems to find a place more definitely in the attributes of the retarded pupils. It may, less probably, be laid at the door of an undue "other-worldliness," in which case the implication is as in the case of theater-going, with the attendant dif-

ferences between boys and girls pointed out for the latter activity: this may be regarded as another instance in which boys engage in an activity, to greater or less degree, with no appreciable effect upon their school standing, while the different susceptibility of the girl unites with an emotional appeal for which the school does not make room to render her liable to retardation. It may also be that the girl of this group turns to such social opportunity as is presented in this activity, in lieu of other interests open to girlhood from which the retardant girls as a class seem to be cut off. This surplus of church-going may be making up the retardant girl's deficit in going to Sunday school, going to libraries and museums, and musical activities (see III, 3).

3. *Non-participations associated with retarded school progress.*—Restricted participation or total lack of participation in certain activities, according to the scores of the tables, goes with retardation: such activities among boys are reading and play, already instanced in the classification of activities most largely associated with normal boyhood (I, 3).

Activities of this class among girls are play, musical activities, taking vacation trips, going to Sunday school, and going to libraries and museums. Here again, quite significantly, the liability to retardation is more serious for the girl than for the boy. For her, restriction in or deprivation of any of these interests carries with it a concomitant of inhibited school progress; for the boy, indifference to musical activities may be associated with retardation as the

negative aspect of the fact that increasing degrees of this interest go with increasing rate of school progress (II, 1), but a comparative stinting in vacation trips, Sunday school attendance, and the use of libraries and museums has no determinable effect on his ability to meet the normal requirements of school work; he may show no greater, or even less, application to them than the retardant, and still maintain himself at normal progress (II, 2).

Spare-Time Interests of Accelerant, Normally Progressing, and Retardant Pupils as Indices of Aptitudes of Mind

The spare-time activities reported by the three school groups of children—the accelerant, the normally progressing, and the retardant pupils—are found in the analysis just made to fall into three main divisions when considered with respect to their possible influence on the school progress of the children who report them. A certain portion of them must be held, so far as the data of the tables show, to be causally unrelated to school progress; a second group is clearly associated with acceleration in school progress; and a third set of activities is definitely associated with retardation in school. The school could better understand the dissimilar responses of these differently developing groups of pupils to the material which it presents to them all alike, and it could better undertake the possible reshaping of this material to meet the variant needs or receptivities suggested in these diverse reactions, if it could be

shown that the different kinds of spare-time interests define, for the groups to which they are assignable, different types of psychological make-up, and correspondingly different orders of mental attitude and adaptability to the kinds of appeal which the school affords. Also, these facts should arouse the schools and the community to a more vital interest in the spare-time activities of children. For these pursuits make or unmake the work of the schools themselves.

I. The activities discussed in the first division (see Table XIII) while they have no ascertainable relation to school progress, are significant in their relation to the activities of the groups considered individually. Certain well-recognized pursuits are universal among all the groups, showing that there are certain broad common lines of interest among all children, such as baseball playing among boys, and interest in baseball, in books, and in doing things read about among girls; and still others, representing rather highly developed social tastes, do not appear appreciably among any of the groups, showing that in their immature indifferences also children are pretty much alike; such activities are clubs, dinners, dances, and, for boys, writing. For the school, these latter may be clues to possible opportunities for initiating interest or developing hitherto uncultivated capacities, as in the case of writing among boys.

Certain other interests are found to fall outside of the usual interests of the normally progressing pupils. The latter report comparatively less participation in

the activities which imply specialized interests and inclinations, such as theater-going, magazine reading, and collections for boys, and games and running errands for girls. They participate to a greater degree than the other groups in the relatively unspecialized activities generally accepted as the usual pursuits of children—reading, playing, and outdoor sports for boys, and riding, visiting, and having pets for girls. In the case of the girls, these latter seem to be in general the conventional home-directed recreations.

II. The activities in which the accelerant boys have the highest scores are seen to be those which indicate the schoolish type of mind, or interests which would make for school progress—music, church, Sunday school, athletics, games, books, and visits to libraries and museums. Among the girls, the interests which fall into this classification are the school-directed athletics (basket-ball) and outdoor sports, and gardening and going out or downtown, which for girls are to be presumed to be largely home-supervised, and reading and writing. The practical exclusion of this last activity from the reports of all the groups of boys may indicate that it is characteristic of boys in general to shun this as a conspicuously bookish occupation, or that boys have less tendency to, or are less self-consciously ready to testify to, experiments in writing as a means of self-expression. The accelerant girls are here more pliantly falling into line with school sanctions.

The alignments of this division on the whole all

TABLE XIII

SPARE-TIME ACTIVITIES AND HOME CIRCUMSTANCES OF SELECTED PUPILS, GROUPED ACCORDING TO THEIR RELATION TO THE SCHOOL PROGRESS OF THE RESPECTIVE GROUPS

ORDER OF RELATION	BOYS	GIRLS
I. ACTIVITIES NOT CAUSALLY RELATED TO SCHOOL PROGRESS		
1. Activities common to all groups	Baseball Baseball captaincy	Baseball Doing things read about No. books (av.)
2. Activities represented by inconsiderable scores	Clubs Dinners or teas Dancing Writing (Father dead)	Clubs Dinners or teas Dancing Baseball captaincy (Father dead)
3. Usual pursuits of normal pupils	Outdoor sports Riding Summer camps Play* Reading* Going out or downtown* Work about home*	Riding Visiting Having pets Play*
4. Activities not usual among normal pupils	Theater Collections Vacation trips* Miscellaneous* No. magazines (av.) Work outside of home*	No. games (av.) Miscellaneous* Running errands*
II. ACTIVITIES RELATED TO ACCELERATION IN SCHOOL PROGRESS		
1. Degree of interest in direct ratio to rate of school progress	Music Church	Basket-ball
2. Intensive interests associated with accelerated school progress	Sunday school Library and museum No. books (av.) Miscellaneous* Athletics No. games (av.)	Reading Writing No. magazines (av.) Miscellaneous* Athletics Outdoor sports Going out or downtown Having gardens Caring for gardens
3. Non-participations associated with accelerated school progress	Basket-ball Having gardens Caring for gardens Work about home Going out or downtown Visiting	Summer camps Walks or hikes Making things

TABLE XIII—*Continued*

ORDER OF RELATION	BOYS	GIRLS
III. ACTIVITIES RELATED TO RETARDATION IN SCHOOL PROGRESS		
1. Degree of interest in inverse ratio to rate of school progress	Walks or hikes Having pets Making things (Mother working for pay)	Theater Collections Work about home (Mother working for pay)
2. Intensive interests associated with retarded school progress	Pool or billiards Doing things read about Work outside of home* Vacation trips* Work of all kinds	Church Running errands* Work outside of home
3. Non-participations associated with retarded school progress	Reading* Play*	Vacation trips Play* Music Sunday school Library and museum

*The asterisk indicates activities assigned to two classifications—i. e., showing two kinds of relation to school progress among these pupils.

emphasize the coincidence of the more traditionally schoolish interests in the activities of the accelerant pupils. On the other hand, the comparative absence from the interests of accelerant boys, of outdoor and physically active pursuits such as gardening, making things, working about the house, camping, and walking, as well as of the social interests implied in visiting or calling, of the desultory or undirected pursuits implied in playing pool or billiards and going out or downtown, and from those of the accelerant girls, of the manual interests implied in making things, of the special interests implied in making collections, going to the theater, and of the social and outdoor interests represented by visiting, walking, riding, and camping,

shows a distinct lack, among both boys and girls, of physically active pursuits of the sort that call for strenuous practice and initiative, a want of constructive manual interests and social inclinations, and a general absence of purposeless and undirected or empty spare-time activities.

III. Just as distinctly defined inclinations of mind emerge in a consideration of the activities associated with retardation. The retardant boys are more given to making things, to having pets, to making collections, to doing things read about, to taking walks or hikes. Theirs also are the more specialized pursuits —whether like or unlike such interests when they appear among accelerants cannot be judged here— the inquiring and experimenting interests, the more aggressive social and gregarious inclinations—as shown especially by the preponderance of churchgoing among retardant girls—the more adventurous tendencies, and the manual instincts.

On the other hand, the retardant pupils have a much larger burden of sober work, and they lack reading and play. The retardant girls lack just those school-approved interests in which the accelerant boys show largest scores. These children report also in greater measure than the other groups the unsupervised and desultory, time-dissipating pursuits, and they as a class pay a penalty for the preoccupation of the mother in bread-winning outside of the home. In this respect they resemble the delinquents of Tables I and II.

Conclusions Drawn from the Qualitative Analysis of Spare-Time Pursuits

The general conclusions which emerge from the findings of this chapter are as follows:

Although some of the spare-time pursuits of school children, so far as the reports of this study yield proof, show no relation to the rate of school progress of the pupils who report them, there nevertheless are forms of spare-time activity among school pupils which do accompany rapid school progress more extensively than slow school progress, and other activities which more largely accompany slow school progress. In so far as given types of spare-time activities are found to be uniformly coincident with more rapid school progress, we are justified in believing that the encouragement of these activities will tend to promote school progress. Likewise, in so far as certain other activities are found to be coincident with retardation in school work, we may discourage such activities, substituting others for them, with reasonable expectation that this will tend to promote school progress.

To reach these conclusions we are not forced to establish a direct *causal* relationship between spare-time activities and school progress. Instances are not at all unusual in which development of a recreational interest in wireless telegraphy or automobiles or motor-boats has brought about a marked change in a pupil's progress in elementary or general science work. Plays and games of folk or historic significance often result in a larger interest in a related period of

history. It follows that when we develop a pupil's interest and secure his participation in recreative activities of certain kinds we also find him reacting with a greater interest and more effective participation to certain school subjects. We are warranted in holding that encouraging the recreational interest and activity has had some relationship to that awakening of interest also which has expressed itself in more rapid progress in the related school subject. We may not be able to say that the one is the cause of the other, but rather that the two have elements of identity, and that whatever stimulates this commonly grounded interest through recreational channels will awaken and enlarge response on the school-life side, if the school life affords any opportunity for such response.

Some recreational interests clearly have no identity with interests and purposes fostered as desirable aims by the schools. Other basically desirable interests express themselves in unwholesome forms of recreational activity; they are misdirected interests. In either case, by substituting for these new interests in the guise of other and appealing spare-time occupations having their counterpart in school studies and purposes, we may infer larger response to the school subjects representing these approved interests than before they were brought into the child's spare-time life, and thus assign to them value in promoting school progress. Scouting activities, competitive games, making things, excursions to industrial plants and to forest and field, and the read-

ing and discussing of wholesome, compelling reading-matter, if substituted for loafing, shooting craps, playing about the railroad yards, stealing rides, and reading-matter that is trashy or worse, may very reasonably be expected to result in changes for the better in such school work as has a content related to these interests and activities. This conclusion is supported by the facts of general observation and experience, as well as by the principles which give it psychological explanation.

The facts revealed in Tables XI and XII thus furnish some definite basis upon which parents, teachers, and the community may proceed to the selection and direction of the recreational activities of pupils, in so far as school progress alone is set up as the purpose in the light of which the worth or wholesomeness of the spare-time pursuits of children is to be appraised. This selection and direction of course requires the enlargement of opportunities for desirable recreation activities, and the elimination of the conditions which suggest or impose undesirable activities. Among the interests coincident with accelerant school progress, for instance, are athletics and gymnastics, reading, musical activities, visits to libraries and museums, Sunday school, games, and play. In a large measure, these represent activities for which opportunities must be provided for children, and which require some direction and supervision if they are to be most profitably used. By contrast, a number of the activities which are seen to be coincident with slow school progress

are those enforced by unfavorable home conditions —as undue measure of unchildish work, and that uncontrolled or desultory type of activity resulting when children are left to their own devices, as going out or downtown, playing pool, making things, and doing things read about, so far as these are purposeless and sporadic or done to while away time.

Lack of parental oversight, to be inferred from the fact that both parents are engaged in work outside of the home, coincides in the reports of the retardant pupils with activities of just this kind. To this lack of direction may possibly be charged also that retarding excessive or injudicious participation in activities which, when moderately engaged in, are seen to be not only not unwholesome but even contributory to acceleration in school. Here the school might do much to neutralize or at least minimize an unfortunate home background; a responsible and guiding instead of an unrecognizing attitude might go far toward helping such pupils to a better organization of their spare-time activities.

Are These Differences Genuine Group Characteristics?

That these differences in group scores are not merely accidental, such as would appear if any small groups taken at random were compared, is shown by the results of various methods of approach attempted in the securing of the scores which should represent a "normal" group of children.

In the first instance, it was proposed to have this

group represented by *median* or *average* percentage scores for the total school group represented in Tables I and II, exclusive of the delinquents—i. e., the *normally distributed* group of children of all gradations of school progress comprising the 626 boys and the 648 girls. This group in the nature of things included some of the accelerant and retardant pupils of the special group of 100, though not all, as it was found necessary to go beyond the total unselected school group to make up the desired count of cases of extreme acceleration and extreme retardation.

By this method we should have obtained a series of norms representing, for the various activities, the scores of a normal distribution of children, without selection, as they came in the school enrolment. These percentages were actually worked out and aligned with those for the selected groups, in two different ways, as follows:

In the first instance, the tables were worked out for the three groups—the accelerant, the retardant, and the normally distributed pupils—of boys and girls, respectively, in percentages of persons mentioning, as in Tables I and II. The greater significance to be gained, however, by using percentages of *mentions*—i. e., scores showing the intensity with which a given group participates in the various activities—led to the tabulating of the scores for the accelerant and retardant pupils in their present form, and thereupon the norm percentages, on the basis of the mentions of the normally distributed

group for the several activities, were worked out for these tables as well.

Comparison of the norms for these two tables with those for the two tables based on persons mentioning showed a striking correspondence as regards the relation of these scores to those for the two selected groups—i. e., they verified, to an extent that was almost uncanny, the inferences for which the previous array of norms with accelerant and retardant scores had given ground.

But in the course of this work the advisability of including, in the normally distributed group, the 100 cases of extreme retardation and acceleration was called in question. Theoretically, however, the elimination of the 50 cases of extreme acceleration and the 50 cases of extreme retardation—that is, of the two small groups at either end of the normal distribution curve—would not have modified significantly the value of the norms; it would have amounted practically to subtracting the same quantity from both sides of an equation—taking 50, the number of the accelerants, from one side, and 50, the number of the retardants, from the other. This would be the more true from the fact that *median* values rather than averages were used for most of the items, the median avoiding the disturbing influence of extreme values as the average does not. But even omitting the selected accelerant and retardant pupils would still leave, among the normally distributed pupils, many accelerants and retardants, but of less than two years' variation—i. e., such as

would not have been taken over into the selected groups showing two or more years of deviation. Working out the figures along these lines would have brought us no nearer to securing an actual norm.

The fundamental objection to either of these methods is that while they give workable scientific norms, the latter are composite abstractions and give us no picture of a *normal child* in relation to the activities in question. It was therefore decided to use the answers of an actual group of *normally progressing* pupils—children who would represent exactly the median of the usually accepted norm in school progress, those in the sixth grade being just 12 years old, those in the seventh grade 13, those in the eighth grade 14, and so on.

When the percentages thus obtained were compared with the previous norms, these new scores showed on the whole the same relation to those for the accelerant and retardant groups as did the previous scores for the normally distributed group. When the two sets of scores themselves for this debated group (i. e., the previous norms and the scores of the normally progressing pupils) were compared, certain differences stood out which accentuated deviations already shown by the composite norms—deviations of the normal child's record from the percentages of the other two groups, especially in regard to such telling items as play, reading, making things, going to the theater, going out or downtown, and the various phases of work as such (i. e., work about the home, work outside of home, etc.).

CHAPTER VII

OTHER FACTORS WHICH MIGHT AFFECT BOTH SCHOOL PROGRESS AND SPARE-TIME PURSUITS

The differences of relation between the school progress rating and the spare-time activities of school children disclosed in the analysis of the preceding chapter lead naturally to the question as to how far other possible factors, besides those inherent in the temperaments and habits and recreational home standards of the children, may account for these differences.

Grade Distribution of the Accelerant and Retardant Pupils

In a group composed of all the pupils of the upper four grades of two public elementary and two high schools and of three private schools including both elementary and high school grades, the pupils found to be accelerant, and the pupils found to be retardant, were distributed among the grades as indicated in Table XIV.

The number of elementary grade pupils is slightly larger for the retardant than for the accelerant groups. The question might arise as to whether this fact, because of the possibility that the pupils of the

lower grades would naturally show less variety and intensity of pursuits, might not modify group scores

TABLE XIV

GRADE DISTRIBUTION OF ACCELERANTS AND RETARDANTS

GRADES	BOYS		GIRLS	
	Accelerant	Retardant	Accelerant	Retardant
6 and 7	10	8	8	11
8	4	9	0	8
9 and 10	9	4	6	5
11 and 12	2	4	11	1

for the accelerants and retardants. To discover whether this unevenness of distribution would invalidate the general result, the sums of the scores of the eight retardant elementary school boys of lowest school grade were compared with the sums of the scores of the eight accelerant boys farthest advanced in high school. The average score for the elementary school eight was 38.2; that of the high school eight, 39.1—showing a total difference too small to be significant. Among the elementary school boys the scores for reading, having collections, being captains of baseball teams, going to church, going to libraries or museums, outdoor sports, caring for gardens, going out or downtown, and the average numbers of books and games reported, are higher than for the high school pupils. That the numbers of the elementary and of the high school pupils are not the same in the respective groups does not therefore seem to invalidate the

resultant for each group. In the case of the girls, although the total numerical superiority of the accelerant group over the retardant group is probably slightly greater than in the case of the boys, because of the relatively larger number of girls in the high school group, the results obtained seem comparable.

Age Differences

As regards the ages of the pupils within the respective groups, the point of interest lies in their deviation from the median ages of their grade groups. The terms "accelerant" and "retardant" are applied in this study only to these pupils whose ages deviate by two or more years from the ages regarded as normal for their respective school grades—i. e., the ages assigned to the several grades on the basis of placing entrance into the first grade at the sixth year of age, and rating as normal school progress the completion of one grade each year. Thus, pupils in the sixth grade are not rated as accelerant or retardant if they give their ages as 11, 12, or 13. Variations ranging from a half-year to a year on either side of 12 are so common that deviations from 12 not in excess of one year are not rated as indicating acceleration or retardation. For the seventh grade 13 is taken as the normal age, for the eighth grade 14, and so on. The deviations from these ages found among the pupils here considered are given in Table XV.

To point out that every one of these retardant pupils is four years or more older than each of the

accelerant pupils in his own school grade puts the case more impressively than to state that each of the

TABLE XV

DEVIATIONS IN AGES OF ACCELERANT AND RETARDANT PUPILS FROM NORMAL AGES OF THEIR RESPECTIVE SCHOOL GRADES

DEVIATIONS	BOYS		GIRLS	
	Accelerant	Retardant	Accelerant	Retardant
2 years	24	20	25	22
3 years	1	5	0	2
4 years	0	0	0	1
Average deviation	2.04 yrs.	2.2 yrs.	2.0 yrs.	2.16 yrs.
Average difference within group	4.24 yrs.		4.16 yrs.	

retardant pupils is two or more years above the median age of those who are progressing normally. It suggests emphatically that these children are either inferior in ability, or that conditioning social or economic factors impede their progress, or that their aptitudes, interests, and activities are different in kind from those of the normally progressing pupils and are not being fully and adequately developed and utilized. That a pupil is above the normal age for a given grade means more than that he entered school later than his sixth year. The retardants here discussed were all in at least the sixth grade—a point at which children who entered the first grade above age could have caught up with others of their own age group. These retardants belong almost entirely to the three-quarters of all retardants in the Cleve-

land schools who average more than one year to a grade, and not to the other quarter who make normal or rapid progress.[1]

General and Special Ability

General and Special Ability Tests.[2]—To secure estimates of general ability on the basis of which the latter might be measured as a factor in accounting for differences in both the school progress and the spare-time activities of children, three forms of general ability tests were given to 1,500 children distributed through the grades from the fifth elementary school grade through the senior year of the high school. The results of the three tests were combined for the individual pupils of each grade, and these final resultants taken as indices of general ability.

As tests of intelligence which might be easily administered as group tests and which would require but a small amount of time, three forms—the opposites, visual vocabulary, and completion tests—were chosen. All of these stand high in point of reliability as general intelligence tests. The index derived by combining the results of the three forms of tests would seem therefore to be a fair measure for use in comparing the general ability of pupils. In view of the problem of administering the tests by the group method, and in a relatively short space of time, there

[1] *Child Accounting in the Public Schools*, Cleveland Education Survey, Vol. I, pp. 44–5.

[2] See Appendix for test forms, and for data regarding their sources, application, etc.

seem to be no other available forms which would have given an index of ability having any greater validity.

It was thought that differences in muscular control might have a significant relationship to some forms of recreational activity. Two forms of the maze test, a test in muscular control, were given and the combined results of the two taken as indices of muscular control. This maze test, in point of administration, is the easiest test to give by the group method in a short space of time. With the limited number of trials allowed—two only—its reliability is probably not very great, although the findings so obtained probably point to the same general conclusions which would follow its more extended application.

The relationship between the general ability test results and the maze test results was also found; this correlation showed that a given degree of ability in the one is not an indication of a similar degree of ability in the other. A correspondence of results, high or low, was found in only 47.9 per cent of the cases. This shows a slight tendency to negative correlation—that is, if a pupil ranks high in general ability, there is just a slight chance that he will rank correspondingly low in muscular control, and vice versa. But the tendency is very small—practically negligible. If there were no tendency at all to correlation—that is, if there were no chance at all that the presence of one would indicate the presence or absence of the other—the percentage of correspondence would be just 50.

Correlation of Variety of Activities and Ability Tests

The numbers of different spare-time activities mentioned in compositions covering a school day, a Saturday, and a Sunday were arrayed respectively for 238 boys and 325 girls who were given the general ability tests, and these sums and the ability test scores were correlated. The percentage of correspondence—indicating the extent to which it is probable that a relatively great variety of activities will go with a high score in general ability, or a low score in the one go with a low score in the other—is 53.6 for the boys and 52.7 for the girls. That is, there is only a small tendency that boys and girls of high general ability will engage in a greater variety of spare-time activities than boys and girls of low general ability.

On the whole, while the correlations of abilities and activities are of interest and value from the standpoint of psychology and general education, the working out of these correlations contributes very little to modify former conclusions as to the relation of variety of spare-time activities to school progress.

Ability Tests and School Progress

In general, all investigations of correlation of abilities with facts of spare-time activity or with school marks and progress showed substantially little correspondence. There is a slight positive relationship between ability test scores and school marks: the average percentage of correspondence of ratings is 53.2 for the boys and 56.2 for the girls; the percentages

would be 50 if there were merely a pure chance relationship. This simply confirms other studies which have shown that school marks are but a poor index of individual ability.

Among the 1,500 children who were given the three forms of general ability tests, the results of which were combined into a single index of general ability for each pupil, there were 10 accelerant and 10 retardant boys, and 13 accelerant and retardant girls each, who belonged to the selected groups of 50 accelerant and 50 retardant pupils whose spare-time activity records have been compared with those of normally progressing pupils (chap. vi). These boys and girls were distributed by grades as follows:

TABLE XVI

GRADE DISTRIBUTION OF ACCELERANTS AND RETARDANTS TESTED FOR GENERAL ABILITY

GRADES	BOYS		GIRLS	
	Accelerant	Retardant	Accelerant	Retardant
6	5	4	2	5
8	2	6	0	5
9	3	0	3	1
10	0	0	0	1
11	0	0	8	1
Av. of ability scores of group	176.7	168.5	193.1	173.5
Av. of ability scores of total group	172.2		183.0	

The proportionately larger number of eleventh grade girls in the accelerant group probably raises the average score in ability slightly for this group.

More illuminating than the comparisons suggested by these group averages are the individual relations of each of these pupils to the median scores of their own grade groups. The median score is the grade above which and below which, respectively, just half of the pupils of the given group are found to rank. The number of pupils whose scores place them above and of those who fall below the median ability scores of their respective grade groups, together with the average deviation within each group (i. e., the average of the deviations of the individuals of each group from the median score of the group) are shown in the following table:

TABLE XVII

RELATION OF ACCELERANTS AND RETARDANTS TO MEDIAN ABILITY SCORES OF THEIR RESPECTIVE GRADE GROUPS

RELATION TO MEDIAN SCORE	BOYS				GIRLS			
	Accelerant		Retardant		Accelerant		Retardant	
	No.	Av. Dev.	No	Av. Dev.	No.	Av. Dev.	No.	Av. Dev.
Above median ability	4	20.0	5	20.4	6	16.2	6	16.7
Below median ability	6	13.1	5	27.6	7	25.9	7	29.9

That of the 10 accelerant boys, six are *below* the median ability of their own grade groups, and of the 10 retardant boys, five *above* the median ability of their groups, leads us to doubt whether the native ability gauged by the tests is very largely operative in determining school progress. The rating of the girls emphasizes this conclusion. The average

amount of deviation from the median scores is greater, however, for the accelerant boys who are above median ability than for those who are below, and greater for both those retardant boys and girls who fall below than for those who are above median ability; these facts indicate the reasons why the average of total ability is higher for the accelerant than for the retardant pupils. Although the deviation of the accelerant girls who are above median ability is less than the deviation of the accelerant girls who fall below median ability, the average of total ability of the accelerant girls is higher than that of the retardant girls because of the large deviation of the retardant girls below median ability. Ability as re-

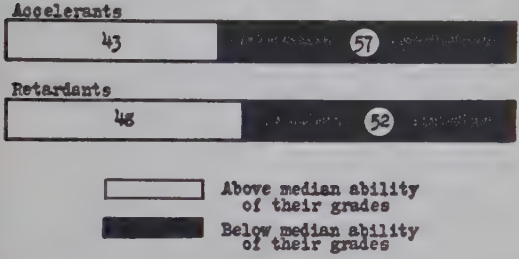


DIAGRAM 10.—RELATION OF ACCELERANTS AND RETARDANTS TO MEDIAN ABILITY SCORES OF THEIR RESPECTIVE GRADE GROUPS

Percentages of accelerants and retardants who rank in ability respectively above or below the median ability scores of their grade groups

vealed by the tests does show itself as a factor, therefore, in determining school progress (see Diagram 10),

but in a degree relatively small in comparison with the part played by the interests and activities which are revealed by the uses of spare time.

School Marks and School Progress

School marks, giving the average grade of each pupil in all his subjects for one month, were included, in the records of this study, for a group of pupils composed of 14 accelerant and 19 retardant boys, and nine accelerant and 20 retardant girls. Table XVIII gives the numbers of these who fall respectively above or below the median grade of their own grade group:

TABLE XVIII

Relation of Accelerants and Retardants to Median School Marks of Their Respective Grade Groups

Deviation from Median Grade	Boys		Girls	
	Accelerant	Retardant	Accelerant	Retardant
Above median school marks	11	7	6	3
Below median school marks	3	12	3	17

In this distribution there is very markedly shown a relationship between acceleration and high marks, and between retardation and low marks. Still, a number of accelerant pupils receive low marks, and a number of retardant pupils have high grades. Over a third of the retardant boys have grades which are higher than the median grades of their group. Differences in ability to make high grades therefore do not entirely explain differences in school progress or in spare-time activities.

Economic Condition: Occupations of Fathers in Relation to School Progress of Children

To discover whether the kind of work engaged in by the father, and the coincident general economic and social status of the family, have any considerable determining influence upon school progress, the occupations of the fathers both of the selected groups of children and of the whole distribution of pupils were classified for boys and girls together, as no marked differences in respect of this classification distinguish the sex groups.

Instead of the usual classification of occupations, a classification was used which would indicate somewhat more clearly the amount or type of ability, training, and initiative involved in given occupations. The terms used indicate in themselves whether the work they designate implies independent, personal initiative, extended training, large or small responsibility, or relatively low ability and training.

This occupational grouping, for the fathers of the selected pupils, results as indicated in Table XIX. The occupational distribution of the fathers of over 1,200 boys of the whole school group is shown by the percentages of Table XX.

A comparison of Tables XIX and XX (see Diagram 11) will show that, in general, the distribution of the fathers of the accelerant pupils most nearly resembles the distribution of the fathers of the public high school boys; the distribution of the fathers of the retardant pupils most nearly resembles that of the fathers of the public elementary school boys.

But the fact that, within the group of accelerant pupils, the percentages of fathers engaged in profes-

TABLE XIX

OCCUPATIONAL DISTRIBUTION OF FATHERS OF ACCELERANTS AND RETARDANTS

OCCUPATIONS	FATHERS OF ACCELERANTS		FATHERS OF RETARDANTS	
	No.	Per Cent	No.	Per Cent
Professional	7	14.9	1	2.4
Directive or managerial	26	55.3	17	41.5
Directed: clerical, commercial, etc.	3	6.4	3	7.3
Skilled industrial	10	21.3	15	36.6
Unskilled	1	2.1	5	12.2
Not reported	1	..	8	..
Dead	2	..	1	..

sional and directive or managerial occupations are relatively rather higher than the corresponding figures for the group of public high school boys, indicates that a considerable number of the pupils of the

TABLE XX

OCCUPATIONAL DISTRIBUTION OF FATHERS OF 1,294 BOYS (In Percentages of Fathers)

OCCUPATIONS	FATHERS OF ELEMENTARY SCHOOL PUPILS			FATHERS OF HIGH SCHOOL PUPILS	
	Delinquent 116	Public 503	Private 87	Public 518	Private 70
Professional	3.4	3.9	25.3	8.7	12.9
Directive or managerial	7.8	37.4	65.5	50.2	74.3
Directed: clerical, commercial, etc.	6.0	5.2	3.4	9.3	2.9
Skilled industrial	39.7	42.1	5.7	29.3	9.9
Unskilled	43.1	11.3	0.0	2.5	0.0

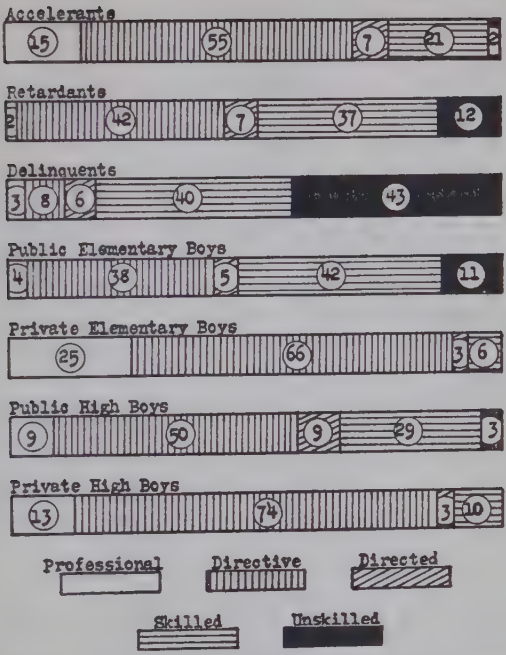


DIAGRAM 11.—OCCUPATIONAL DISTRIBUTION OF FATHERS OF BOYS IN SCHOOL

The divisions of the bars, representing percentages of the respective groups, show in what proportion the fathers both of the selected accelerant and retardant pupils, and of the various groups making up the normal distribution of elementary and high school pupils, are engaged in the respective classes of occupations—professional, directive, directed, skilled, and unskilled

former group come from homes of the same type as those represented by the private school pupils.

The relative dominance of professional and managerial occupations among the parents of the pupils of the accelerant group, and the relatively larger number of industrial workers, skilled and unskilled, among the parents of the retardant pupils, indicate that influences of economic status or social inheritance, or of organic inheritance, or perhaps of all three, are factors in determining school progress. It will be recalled here that the retardant pupils work more about the home, and outside of the home for pay, than the accelerant pupils.

But the results are by no means wholly one-sided. The parents engaged in directive or managerial occupations are represented by more than one-third of the retardant group, while the clerical and unskilled workers are represented in the accelerant groups. We are unable, from the available data, to analyze the occupational factor in terms of organic inheritance, social influence of the home, and economic status of the family; but the comparison of the distribution for the two groups—the normally distributed and the specially selected group of accelerant and retardant pupils—shows that the factors of home influence and of economic and social status are quite certainly not all-controlling in their influence.

The high mortality among the parents of pupils who have become delinquent (see Tables I and II, and Diagram 3), the relative meagerness of the spare-time activities of delinquents, the greater richness of

recreational activity among high school and private school pupils, the greater proportion of out-of-school time spent in work by delinquents and elementary public school pupils, and the appearance among high school and private school pupils of spare-time pursuits dependent upon considerable expenditures of money, all point to the economic and social conditions of the home as factors which play a large part in determining opportunities of recreational activity and the forms taken by spare-time pursuits (see chap. ii). For those children whose home circumstances imply limited resources and conditions otherwise unfortunate, the study reveals a need, not yet adequately appreciated, for development of opportunities, and for guidance and supervision in the use of these, by the schools and other public and private agencies. The school cannot do much to change these home conditions, but it can do a great deal to supplement the resources which they afford.

A Study of Baseball Playing among Boys

Rather full data in regard to baseball playing among the boys were secured and an intensive analysis made of this form of recreation in relation to (1) the occupations of the fathers of the boys as indices of the economic circumstances of their homes, and (2) the native abilities of the boys themselves. About 80 per cent of all the boys report that they play ball. The percentages vary somewhat with the occupations of the fathers: only 77.8 per cent of the boys whose fathers are unskilled workmen play base-

ball, while 83.2 per cent of those whose fathers are in managerial occupations play this game. This would indicate that even in the choice of an activity so nearly universal among boys, the economic circumstances of the home are a measurable factor.

In attempting to isolate native ability as a factor in the selection of baseball as a spare-time pursuit, some rather meager but suggestive evidence is found in the correlation of ability scores with certain facts about baseball playing. For a limited group of boys, from the fifth to the eighth grades, inclusive, general ability and maze test results were available, and these were correlated with the facts relating to the baseball experiences of these boys.

Of this special group, 71 are or have been baseball captains. The percentage of these whose scores in ability are above the median established by the general ability tests for their respective grades is 57. By median ability is meant that degree of ability above which and below which, respectively, just 50 per cent of the pupils are found to rank. Of these boys, again, 51 are or have been pitchers; of these, but 49 per cent are above median ability.

In the maze test results, these relationships are just reversed: of the 71 captains, but 45.7 per cent are above median ability in muscular control, while of the pitchers 52.9 per cent are above median ability in muscular control. The captain is often captain by reason of qualifications other than mere technical ability in manipulating the bat and ball.

These results are not significant in showing the

relation of native ability to playing baseball; they are facts that, in an endeavor to analyze such evidence as seemed to offer any means of getting at the factors which determine the selection of various forms of spare-time activity, came out as by-products. They do suggest that there is some positive relation between this form of recreation and qualities of native ability. As a deeply fundamental educational question, a study of the native abilities and capacities of children is, therefore, seen to be significant for their appropriate direction in matters of recreation as well as in problems of intellectual development.

Summary

As already indicated, the topics covered in this chapter modify in almost no measure the conclusions reached in chap. vi as to the influence of spare-time pursuits on school progress; yet the necessity of testing all possible means of discovering or isolating elements which underlie the relation of spare-time activities to school progress required that these investigations be made. Fundamentally, the question is one of psychology, sociology, and education. But the limits set for this particular phase of the study admit those elements only which have to do with the actual discoverable influences of school interests and activities upon the uses of spare time and of spare-time activities upon school progress. This chapter is included to indicate that those avenues of approach to the problem which

would at once suggest themselves to the psychologist or to the educational investigator have not been ignored nor neglected; but following these avenues has yielded little that would do more than establish that which is obvious, or lead into problems too technical to come within the province of this inquiry.

In particular, there have been pointed out two possible basic sources of influence accounting for differences in both spare-time activity and school progress: first, that of difference in amount of general ability, and second, that of home influences, social and economic. As regards the first, the results tabulated show that, while superior general ability is a slight positive factor in determining school progress, superior ability is found, in numerous cases, in retardant pupils, and some accelerant pupils are found to have relatively low ability. So far as the second of these possible factors goes, it has been seen both that pupils of rather straitened home circumstances, whose opportunities are economically limited because of the small income of their parents, and who are forced to work outside of the home, are found among the accelerant pupils, and that other children from well-to-do homes are found in the group of retardants.

It may therefore be concluded that spare-time activities and conditions themselves—which of all the influences examined are the only ones found to be involved in a considerable interrelation with school progress—or the interests and types of mind which they indicate and represent, are factors whose sig-

nificance is marked and important in relation to school progress. Yet both general observation and the evidences of this study indicate that the schools have almost completely ignored this fact. The retarded school status of many pupils for whose slow school progress there can be no explanation in want of ability or unfavorable home conditions, may be accounted for on the basis of this wastage of the psychological meanings and social implications of the spare-time interests of these pupils.

CHAPTER VIII

READING AS RELATED TO SCHOOL PROGRESS

The children of the several grades of the respective elementary and high schools to whom the questionnaires were submitted were asked to report by name such books as they had recently read and the magazines which they read currently. The median number of books and magazines reported by 206 boys and 261 girls, representing a random selection from the typically distributed grades and schools, is shown in Table XXI. The median is the score above which and below which, respectively, exactly half of the scores within a given group are found to fall.

TABLE XXI

MEDIAN NUMBERS OF BOOKS AND MAGAZINES REPORTED BY TYPICALLY DISTRIBUTED ELEMENTARY AND HIGH SCHOOL GROUPS

SCHOOL GROUPS	BOOKS		MAGAZINES	
	Boys	Girls	Boys	Girls
Elementary school	9.0	10.6	5.5	4.7
High school	6.1	8.1	6.6	6.8
Av. group deviation	48.3%		34.6%	

The group variation above and below the median is rather high, as one would expect; from the per-

centages giving the average variation of the groups, the deviation for books, 48.3 per cent, is seen to be larger than that for magazines, 34.6 per cent.

For both boys and girls, the number of books reported is larger for the elementary than for the high school group, while the number of magazines reported is larger for the high school group. This imposes upon the school a problem of direction of choice in periodical literature to which it does not ordinarily give much attention. This reading is also one of the sources of information about the spare-time interests of children which might well be turned to excellent account. This aspect of the question will be further considered in connection with the discussion of the kind and character of the books and magazines read by pupils.

Correlation of Numbers of Books and Magazines Read

To discover whether the pupils who read the largest numbers of books are also those who read the largest numbers of magazines, the numbers of books and magazines read by the respective groups of children were correlated. For the elementary school pupils taken together, there is quite a marked tendency to correspondence, the percentage of correlation being 67. This indicates that reading interests among elementary school children are unspecialized and general in their spread over books and magazines. Among the high school pupils, however, this tendency is reversed, although the amount of corre-

spondence in the negative direction is very small, the percentage of correlation being 48. If there were no tendency at all to correspondence, there would be just 50 per cent of cases in which the numbers showed correspondence, and 50 per cent of cases in which they did not. That the diminished reading of books among high school pupils is accompanied by an increased reading of magazines is seen from the median scores given in Table XXI for the whole group of high school students.

Quality and Character of Periodical Reading-Matter Reported

While the reading of periodical publications is to be regarded as a desirable spare-time activity, the wholesomeness of this reading may vary greatly. To find what magazines and papers interest children, as well as how many, each child, as has been stated, was asked to make a list of those which he was in the habit of reading. All the titles reported in the lists of a random selection of 467 public school children, 206 boys and 261 girls, were grouped by types and arrayed with the numbers of the pupils reporting the several types. Lists reported by 96 of the 100 accelerant and retardant children were similarly classified, and the classifications totaled for the respective groups. The total in each case is the sum of all the mentions of all magazines by all the pupils of a group. In Table XXII are shown the percentages which the mentions of each type of publication form of the total mentions of each group: the

undifferentiated pupils whose scores serve as a norm—the 206 boys, the 261 girls, and the total group of 467 boys and girls—and the 48 accelerant and the 48 retardant pupils (see Diagram 12).

TABLE XXII

PERCENTAGES OF DIFFERENT TYPES OF PERIODICALS READ BY NORMALLY DISTRIBUTED AND SELECTED GROUPS OF PUPILS

TYPES OF PERIODICALS	NORMALLY DISTRIBUTED PUPILS			SELECTED BOYS AND GIRLS	
	Boys 206	Girls 261	Boys and girls 467	Accelerant 48	Retardant 48
Popular story	28.1	25.5	27.0	17.0	26.5
Newspaper	21.7	20.5	21.4	18.0	24.0
Home and domestic	4.0	26.5	16.0	15.4	11.0
Current review	12.4	13.0	13.0	14.1	5.7
Mechanical and technical	15.4	2.0	8.0	10.5	13.0
Standard	2.5	6.0	4.5	8.0	3.0
Juvenile	6.0	1.5	3.4	5.0	6.0
Moving-picture	1.6	3.0	2.0	3.5	4.0
Humorous	3.3	1.0	2.0	3.0	3.0
Religious and Sunday school	2.0	1.0	1.4	2.0	0.5
Sports and athletics	3.0	0.0	1.3	3.5	3.3
Total	100.0	100.0	100.0	100.0	100.0
Average no. read by each child	4.5	4.8	4.7	4.9	4.6

A few illustrations will show what kinds of magazines and papers are assigned to the respective classifications of the table. A total of 195 different periodicals was reported. The "popular story" magazines include the *Argosy, American, Cosmopolitan, Everybody's, Hearst's, McClure's, Metropolitan, All Story Weekly, Every Week, Collier's, Leslie's, Harper's Weekly, Saturday Evening Post,*

and others of this kind. The newspapers named were chiefly the Cleveland papers, but there were many mentions of Chicago and New York dailies and of several others from cities in other parts of the United States. Under the classification of "home and domestic" are grouped the *Delineator, Good Housekeeping, Ladies' Home Journal, McCall's, Modern Priscilla, Woman's Home Companion, Vogue*, and others of the type implied. "Current reviews" refers to the *Literary Digest, Outlook, Review of Reviews*, and others of like nature. The "mechanical and technical" magazines include the *Baker's Journal, Electrical Experimenter, Popular Mechanics, Popular Science Monthly, Printer's Ink, Scientific American*, and others devoted to vocational, technical, or generally scientific interests. The term "standard" is applied to such magazines as the *Atlantic Monthly, Century, Harper's, Scribner's, National Geographic Magazine*, and others of recognized high literary quality. "Juvenile" as here used refers to the *American Boy, Boy's Magazine, St. Nicholas, Youth's Companion*, and others primarily intended for boys and girls. The moving-picture magazines named include *Photoplay* and several others devoted specifically to this field; the principal humorous periodicals mentioned are *Judge, Life*, and *Puck*. The religious and Sunday school periodicals listed include several devoted to denominational or general religious interests. Magazines devoted to sports, athletics, and physical education which appeared in the lists are *Baseball,*

Kodaking, National Sportsman, Outing, Physical Culture, and several others. While there are necessarily many overlappings in this classification, it serves to bring out the especial or dominant types of interest represented by the respective publications.

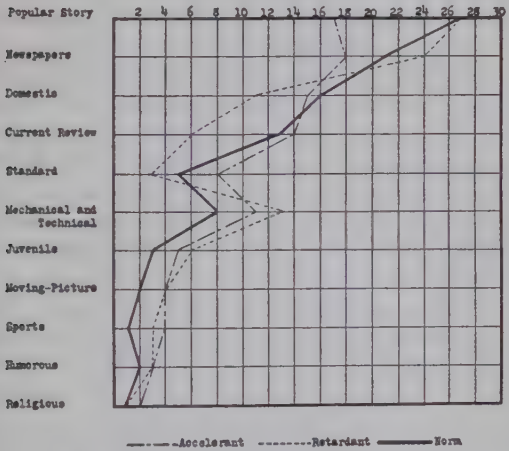


DIAGRAM 12.—PERCENTAGES OF DIFFERENT TYPES OF PERIODICALS READ BY NORMALLY DISTRIBUTED AND BY SELECTED ACCELERANT AND RETARDANT PUPILS

The percentages of the group of pupils taken at random from the total school distribution are here presented as norms standing for a typical unselected group

The differences between the magazine-reading habits of boys and of girls, as shown by the data of the table, do not, though certain conventional disparities of interest appear, on the whole divide the

general problem relating to this kind of interest which challenges the school.

That the boys in general read more popular story magazines and slightly less of the current reviews than the girls is perhaps a little surprising, and that the girls read the standard magazines more than twice as much as the boys seems to indicate that the girls make a somewhat better showing than the boys as regards response to literary quality. This conclusion, considered in connection with the large place the home and domestic magazines occupy in the reading of girls, might be subject to question if it were not also true that the home or domestic magazines serve a purpose for girls corresponding somewhat to that of the mechanical and technical periodicals for boys, and are read for information and suggestions quite apart from the interest of that portion of their content which may properly make claim of literary quality.

The proportion of juvenile periodicals read by both boys and girls is surprisingly low. It is nearly four times as large for boys as for girls, however. The content and the very names of some of these juvenile magazines indicate that their appeal is much more definitely to the interests of boys than to those of girls, but their actual appeal even to boys is small. Of the total group of 467 boys and girls, only 20 named the *Youth's Companion*, and only seven *St. Nicholas*. The combined score for the *Popular Science Monthly* and *Popular Mechanics* is 103. While the literary quality of some of the

juvenile periodicals is high and the intrinsic worth of their content very substantial, children either do not have adequate opportunity to learn of their interest and value, or else these publications do not attain to the hold upon their readers which those periodicals have that represent the interests of adults, and that more fully reflect the everyday activities of the "grown-up" world. Of the 467 pupils, 139 report the *Saturday Evening Post.*

It is no doubt true that the range of periodicals which a child can report reading at home is limited by the choices of his parents and elders in the magazines brought into the home, and theirs in turn often by economic considerations. It may be that few or no juvenile periodicals are available to some children who would be much interested in reading of this kind if they had it. On the other hand, a great deal of the magazine reading of children is done in the public libraries, where there is no such barrier to indulging actual preferences—where, indeed, juvenile publications are especially and attractively provided. These considerations apply equally, moreover, to all the magazine reading of children, so that even though such a state of things may help to reduce the actual number of juvenile periodicals reported, it does not explain the unexpectedly low proportionate place of these among the other magazine-reading interests of the children. Moreover, the same circumstances would obtain with regard to the availability of the kind of books classed as juvenile, concerning which, however, the reports

present very different evidences. And even if these lists were to be admitted, in some cases, only as reports as to what magazines the children see or have access to in their spare time, they must still be rated as unintentionally accurate evidences as to the kinds of periodicals these pupils have an opportunity of becoming interested in—in which case they should be of very real value in pointing out still further the possibilities of supplementing opportunity which lie in the path of the school.

That the schools have a problem in the responsibility of creating and developing interest in the most desirable types of magazine literature is surely evident. That they have a hitherto wasted opportunity, the possibilities of which are indicated in the extensive reading of periodicals even now found among pupils, is evident from the table. In the case of the girl who reports the *Argosy*, *Red Book*, and *Breezy Stories* as her full list, the school is challenged with the problem of creating an interest in reading-matter which deals with more healthful and wholesome activities and ideals, which in its turn will help to develop an interest in and a taste for periodicals of a higher literary quality and of greater value for the conduct of life. This is a question of directing a spare-time activity into a more desirable form. But in the case of the boy who lists the *Literary Digest*, *Popular Science Monthly*, *Harper's Magazine*, and *Outing*, the problem is a very different one. The charge upon the school is not the re-direction of the spare-time reading, but the conserving and

utilizing of its values for that which it might reasonably contribute to the enrichment of the boy's school work and through this to the promotion of his school progress.

The averages given in Table XXII show that here, in the case of a single special activity—as was found when the extent or quantity of all spare-time activity was totaled for the respective groups (see Tables XI and XII, and p. 87) the amount of energy and attention expended is found to be very nearly equal for all the classes of pupils. The accelerant pupils average a number of magazines per pupil just a little above the average even for the 467 pupils of the normally distributed group. The retardants fall just a little below this average. Qualitatively, the differences are great.

The accelerants read a much smaller number of story magazines and newspapers than either the retardant pupils or those of the normally distributed group. They read more of the domestic home magazines than the retardants, but fewer than the general group. They read more current review magazines than the general group, and nearly three times as many as the retardants. They read nearly twice as many of the standard magazines as the general group and three times as many as the retardants. Both the accelerants and the retardants read more mechanical and technical magazines than the pupils of the general group, but the retardants read more of these than the accelerants. Both likewise read more of the juvenile periodicals, but the retardants

read more of these than the accelerants. Both of the latter read more magazines devoted to sports and athletics than the general group.

Standing out as indicative of a special type of interest, and probably of ability, is the number of retardant pupils who read mechanical and technical magazines; the score of the retardant pupils for this special kind of reading is larger than that of the accelerant group, and about twice as large as that of the general group. Coupled with this are the relatively high scores of these retardants for the reading of popular story magazines, newspapers, juvenile magazines, and moving-picture magazines, and the very low scores for the reading of current review and standard magazines. These retarded pupils show that bent of mind which turns to things mechanical and technical, to human action and adventure of the bold, unrefined types portrayed in the more "journalistic" periodicals. These facts regarding the selection of spare-time reading-matter but add to the evidences of the reported choices in other forms of out-of-school activity that reveal in many pupils genuine interests and abilities of large vocational and social value which have been wasted in most cases, but which it is reasonable to believe might be turned to excellent account if appropriately utilized.

Books Read by Accelerant and Retardant Pupils

Lists of the books which they had recently read were returned by 49 accelerant and 49 retardant pupils.

The 911 mentions of books are roughly classified to show the character and quality of the books named, and the numbers of each kind read by boys and girls respectively are shown for each group in Table XXIII. The girls read many more books than the boys; those of which the girls read more are juvenile books, novels, and poetry. The accelerant and the retardant boys average practically the same number, but the accelerant girls read many more books than the retarded girls.

TABLE XXIII

NUMERICAL DISTRIBUTION OF DIFFERENT TYPES OF BOOKS READ BY 49 ACCELERANT AND 49 RETARDANT PUPILS

TYPES OF BOOKS	BOYS		GIRLS	
	Accelerant	Retardant	Accelerant	Retardant
Juvenile	92	77	108	78
Adventure	6	5	4	1
Biography	5	9	3	7
History: patriotic, civic	8	19	17	7
Historical fiction	6	19	11	8
Novels: standard	5	5	16	8
Novels: inferior	40	24	136	61
Nature	2	5	0	2
Art, music, dramatics	0	4	0	0
Science and mechanics	5	10	0	0
Geography and travel	1	1	6	0
Religion	2	1	0	1
Poetry	2	2	15	15
Essay	3	4	5	5
Sport	11	8	2	4
Humor	3	0	4	3
Total no. mentioned	191	193	327	200
Average no. read by each child	7.68	8.04	13.08	8.3

The proportionate relation of each of these classifications to the total number of books reported by

each group is shown for accelerants and retardants, respectively, by the percentages of Table XXIV (see Diagram 13):

TABLE XXIV

PERCENTAGES OF DIFFERENT TYPES OF BOOKS READ BY 49 ACCELERANT AND 49 RETARDANT PUPILS

TYPES OF BOOKS	ACCELERANTS		RETARDANTS	
	Number	Per Cent	Number	Per Cent
Juvenile	200	39.0	155	39.4
Novels: inferior	176	34.0	85	22.0
Novels: standard	21	4.0	13	3.0
Adventure	10	2.0	6	1.5
Geography and travel	7	1.2	1	0.3
Humor	7	1.2	3	0.8
Historical fiction	17	3.3	27	7.0
History: patriotic, civic	25	5.0	26	7.0
Poetry	17	3.0	17	4.0
Biography	8	1.5	16	4.0
Sport	13	2.5	12	3.0
Science and mechanics	5	1.0	10	2.5
Essay	8	1.5	9	2.0
Nature	2	0.4	7	2.0
Art, music, dramatics	0	0.0	4	1.0
Religion	2	0.4	2	0.5
Total no. mentioned	518	100.0	393	100.0

Since the number of children in the two groups is the same, 49, the numbers of the respective classes of books read are directly comparable. The percentages show for each of the two groups what proportion of the whole number of mentions each class of books represents. The proportions for the two groups do not differ very much in amount, except for the reading of novels, in which the accelerants have a score of almost 10 per cent more than the retardants. The other kinds of reading in which the

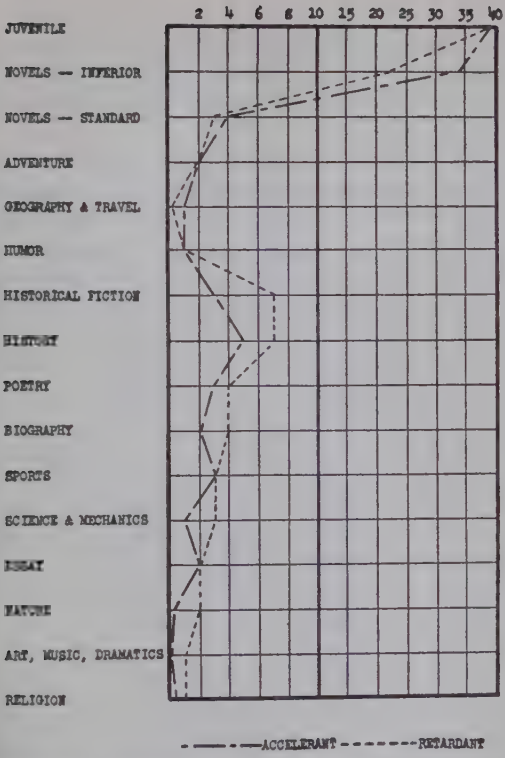


DIAGRAM 13.—PERCENTAGES OF DIFFERENT TYPES OF BOOKS READ BY ACCELERANT AND RETARDANT PUPILS

percentages are higher for the accelerant groups are adventure, geography and travel, and humorous

writings. As regards the reading of biography, history and historical fiction, essays, and books on nature, art, music, dramatics, and scientific and mechanical subjects, the retardant pupils score with larger percentages.

This list of books makes it plain, as the evidences developed with regard to magazine reading and the other forms of spare-time activity have also shown, that the interests of the retardant pupils center largely in the constructive, scientific, and generally realistic activities of life. In their larger percentages for the reading of essays, poetry, and books on art, music, and drama, the retardant pupils also indicate a slightly greater interest in the finer forms of thinking and appreciation. This adds to the evidence that the retardant children have interests and aptitudes which the schools might use to substantial advantage in promoting the school progress of this group. The want of correlation between these interests and the formal courses in the schools which are supposed to represent them indicates an aspect of waste which should invite the attention of those who shape the work of the schools.

Possibly there is also an indication of waste in the unduly large place which second-rate or inferior fiction has in the reading interests of the accelerant pupils. The schools might well consider whether it would not be desirable to stimulate among the class of pupils represented by our accelerant group a larger interest in biography, history and historical fiction, poetry, essays, and books dealing with art, music,

and the drama. The opportunities for making effective connections between these interests and the established work of the schools are large. Failure to make these connections is certainly an indication of waste.

Things Children Do Because They Read About Them

To discover how much the reading of a typical group of children influenced their other spare-time activities, they were asked to name the things they made or did because they had read about them. While the reading sources from which the suggestions are obtained are not often named, the character of the activities which they stimulate is usually such as to indicate that the ideas are taken largely from papers, magazines, and books treating of everyday interests and problems in a popular or semi-scientific form. They seem to come almost wholly from reading done outside of school.

The scores for such activities of this kind as were reported by five or more pupils taken in about equal numbers from the fifth and sixth, the eighth, the ninth and tenth, and the eleventh and twelfth grades of three schools in typically different districts, are shown in Table XXV.

Over one-half of the more than 1,000 pursuits reported are constructive activities. One-third of the remainder are purely play activities—play, games, athletics, and sports. Gardening and poultry-raising are productive activities, but may also be avocational

and therefore recreational. Telling stories and riddles, and the imitative and dramatic activities, are

TABLE XXV

THINGS CHILDREN DO BECAUSE THEY READ ABOUT THEM

ACTIVITIES REPORTED	NUMBERS OF PUPILS REPORTING		
	Boys 252	Girls 367	Total 619
Constructive occupations: making things	153	383	536
Telling stories, working out puzzles and riddles	27	40	67
Imitative and dramatic activities	27	33	60
Playing games, playing with toys	32	26	58
Outdoor sports	41	13	54
Athletics, gymnastics, dancing	26	20	46
Painting, drawing, cartooning	12	27	39
Gardening, poultry-raising	8	27	35
Paper-cutting, paper dolls	0	9	9
Making collections	6	1	7
Writing	4	3	7
Boy Scout activities	6	0	6
Music: playing, singing	1	5	6
Miscellaneous	53	39	92
Total	396	626	1,022

social forms of recreational activity as distinguished from making things and gardening, which may be largely individual or independent of a social group. Among the miscellaneous activities induced by the reading of these children are kodaking, developing pictures, keeping a gun in order, training a dog, flag-signaling, getting suggestions for entertainments, and reading other stories; this classification shows great range and variety.

The major significance of the great amount of constructive activity of various kinds shown to be stimu-

lated by reading is that it reveals the natural interests of children in motor and social activities. What use is made of these interests by the schools? Are the latter adequately exploiting the aptitudes evidenced in these spare-time activities, by means of attractive courses in industrial arts, household arts, elementary physical and biological science, and English which will stimulate and direct the imitative, creative, and dramatic interests revealed in these reports? There is indeed generally very little relationship between the content of school courses and the dominant forms of interests here affirmed by the children as derived from their reading. The neglect of the meaning of these activities is a wastage in both directions: to the school it means a loss in bases of motivation, for spare-time activity it means a loss in stimulation and direction.

CHAPTER IX

SOME SPARE-TIME PURSUITS WHICH MIGHT ACCELERATE INSTEAD OF RETARD SCHOOL PROGRESS

If definite provision were made by the schools for the more appropriate exercise and use of the interests implied in the spare-time activities of children, some of the activities which apparently make for retardation might become assets in relation to school progress instead of liabilities. While working outside of school, and extreme application to making things and to doing things read about, are found to be largely associated with retardation, it is reasonable to believe that the experience and the interests which these pursuits represent would be found, when purposefully directed and put to use, to contribute positively to progress rather than to retard it. It might be said, in other words, that there are certain spare-time activities which seem to contribute to school progress as the school now is, and certain others which now seem to make for retardation, which—at least some of them—would also contribute to progress if the school were as it ought to be. The successful experiments of numerous intermediate schools and junior high schools which have given appropriate recognition to the constructive interests and work instincts

of pupils who are retardant in the conventional school subjects, as these are ordinarily taught, are evidences in support of this conclusion. To carry over the meaning of these findings into the practical task of making the most of the recreational interests of children is a problem calling upon the co-operative deliberation and effort of teachers and school authorities, of parents, and of all community enterprises which offer opportunities for the use of spare time.

Sources of Waste Which the School Could Control

The school cannot control the economic and social circumstances of the home itself; but it can more fully utilize the native abilities, interests, and aptitudes of children, which have, in fact, a nearer relation to the interests of the school itself than the factors of environmental influence have been shown to have. The results of the general ability tests indicate that many of the children of the retardant group are not inferior in ability to many of those in the accelerant group. That many individuals who rank low according to school standards have achieved conspicuous practical success as they have entered upon the world's work is a matter of common knowledge and of relevant import. The social interests and activities of the retardant pupils have also been noted to be strong and aggressive. These social qualities have often been rated as handicaps rather than advantages, yet they are the very qualities upon which both vocational success and the wholesome use of

spare time by the individual in his everyday life are based.

In enlisting these latter interests for educational purposes, and in providing a curriculum planned with a view to guiding and directing the development of those instincts and capacities of children which express themselves in various forms of constructive activity—in contrast to the activities and interests which may be termed formal and academic—the school has, so far, shown itself lamentably wanting. Among such self-expressive activities are making things, doing things read about, various forms of outdoor activity, making collections, and working at home and outside of the home. Rightly used by the school, these interests and activities will sharpen the interests of the mechanically inclined pupils in those types of activity—the studies in literature, music, art, and science—which have been found to be naturally more attractive to the children of the accelerant group. An interest in these latter pursuits which would grow out of appreciation of their relation to the material and social concerns of everyday life should be even more fundamental, stimulating, and recreational than when it is formally developed without reference to this relation, as so often happens in the traditional school treatment of these subjects. Such a co-ordination of liberal interests of this sort with the affairs of the work-a-day world yields wholesome enjoyment and large recreational value; it contributes exactly those energizing satisfactions which are so much needed as a balance to the routine and enervating activities of practical life.

Certainly the school can profit much if it can make these vocationally significant interests and abilities instrumental in accelerating the progress of the very pupils whom they now retard; and, on the other hand, it may contribute much to the forming of appreciations of, and habits of participation in, avocational interests of high recreational worth. Fundamentally, this is a comprehensive problem of general education, but it is as well a problem of recreational education, in that its solution must take into account as integral and important in education both the application of spare-time interests and activities to the ends of education, and the responsibility of the school, as the agency of education, for increasingly wholesome recreational development not less than for general intellectual development.

Opportunities Presented in Related Interests

Some of the evidence secured shows that there is a positive correlation between certain forms of spare-time activity—that is, if a child reports one of two forms of activity so related, the indication is that he will probably show an inclination for the other as well. In general, the greater the number of games a child plays, the greater the number of magazines he reads. There is a slightly greater likelihood that children who make collections will also have pets than that those who do not make collections will have pets. The children who report making collections are also likely to be the children who report taking vacation trips; the practical truth of this relation is of course

that the children who take vacation trips are the ones who have the opportunity of collecting, while those who do not take trips are less likely to have the chance to make collections. In so far as this form of coincidence prevails, it indicates possibilities of developing one form of interest through another which is inherently or circumstantially related, or of stimulating an impulse toward a generally richer recreational life which may express itself in several forms of activity.

Waste in Unrelated Interests

Very few of the spare-time activities reported by children are in themselves unwholesome or wasteful. "Loafing" of that form which consists merely of "hanging around the corner," lazily idling about, implying mental as well as physical apathy, may probably be called so. But there is a form of apparent idling that may be valuable. "I was down by the lake dreaming," is one boy's description of a form of loafing. Day-dreaming is only wasteful when not appropriately utilized.

Some activities become wasteful by reason of excessive participation in them, or are wasteful because of the low quality of their content. Reading and going to shows are wholesome practices when not overdone, and when the quality of the reading-matter and of the shows is good. To be sure, we do not know in any ultimate sense what is wasteful content and what is not, as regards reading-matter and shows, but relatively we set up standards which have

come to have a working validity as a result of application in experience. An activity of this sort may at least be rated as relatively wasteful if it can be shown to have, in its given form, a content of doubtful value, for which a different content, just as satisfying to the participant and of more definitely known value, might be substituted.

Waste Due to Failure of Schools to Interpret Spare-Time Interests of Pupils

The failure of the schools to perceive the usable educational resources latent in the qualities of mind represented by spare-time activities is shown by the following evidences:

1. The retardant pupils engage as actively in out-of-school activities as the accelerant pupils, but the pursuits of the two groups differ rather markedly in kind;

2. The native ability of a considerable number of the retardant pupils is not inferior to that of many pupils who belong to the accelerant group, but it responds to problems and subjects of a different nature;

3. The retardant pupils are more active manually and socially;

4. As regards reading, the books and magazines devoted to mechanical, technical, and vocational subjects, and those which portray life in its more work-a-day and its more adventuresome aspects, are read much more by retardant pupils than by those of the accelerant or normally progressing groups.

Of the 1,022 activities engaged in by 619 children as a result of their reading, over one-half are constructive pursuits, and one-third are activities which may be characterized as largely social. This adds emphasis to the fact already discussed that children are much interested in the materials and processes of constructive enterprises and social activities. The scores show that among the pupils as they advance from the fifth grade through the high school, the spare-time reading of books decreases, that of magazines increases. In this developing interest in periodical literature lies a vital point of contact with interests among the pupils of which the schools might avail themselves most effectively. Facts such as these aid in revealing interests which are basically the material with which the schools have to work.

The fact that there is a very low correlation between the general ability and the school marks of pupils indicates waste on the part of the school in that it does not fully utilize the abilities which the pupils bring to it. Too many of those pupils whose school marks are low show evidence, in the record of their spare-time activities, of interest in and capacity for a kind of work adapted to their particular kinds of ability, in which, if it were transmuted into school work, they would do well and largely balance their poor performance in the kind of work which does not appeal to their instincts, thus making possible for them a higher school rating.

In general, the schools fail to utilize the clues inherent in those spare-time activities which reveal

interest in and capacity for constructive, scientific, industrial, and social studies of current interest which are of first-rate importance for the economic, civic, and social well-being of society at the present time. The wasting of these abilities and resources through ignoring them means that the potential serviceableness of the schools is reduced to a degree appreciable only when we consider the very large percentages of children of good ability and favorable economic status who are eliminated from the schools as soon as the age limit for compulsory attendance is reached. No more fundamental basis for the readjustment of school work to the ends and needs of the larger masses of pupils can be found than the recognition of their interests and capacities as shown by their spare-time activities. These interests and capacities reflect social values and demands, and making use of them fully in the schools would bring the work of the latter altogether more into harmony with the social ends which they are established to promote. The neglect of these interests and capacities is, therefore, for the school as an institution, wasteful of ungrasped possibilities of efficiency, and, for the pupils, wasteful of untried possibilities of accelerating school progress, and thus wasteful of a possible groundwork of incentives for remaining in school.

CHAPTER X

FURTHER DEVELOPMENT AND USE OF THE METHODS OF THE PRESENT STUDY

The methods of securing data which have been employed in this study should, when developed much more intensively for smaller groups, and extended over a period of one or more full school years and one or more full vacation periods, yield results of more detailed and conclusive character.

A more completely adequate study of the problem should be based on controlled experimentation. The procedure might be as follows:

There might be established, in some one school, every possible facility for utilizing the spare-time interests and activities of pupils, including recognition of and response to conditioning factors of home circumstance and of neighborhood opportunities and limitations. Some other school or schools, similarly situated, where the routine and conventional school procedure would be maintained, should be selected to furnish comparative or check groups. Inquiries similar to those of the present study should be instituted from time to time, and such other forms of inquiries and measurements as would make possible a trustworthy record of the differences in both the recreational activities and the school progress of the re-

spective groups subjected to the two methods of school treatment here proposed. The experiment should begin with fifth-grade pupils, and be carried through eight years; this would be following the youngest group—i. e., the fifth-grade pupils with whom the study was begun—through the high school. It is reasonable to assume that by such means data enough would be secured to measure results conclusively.

The Recreation Problem in Terms of the School

In the detailed discussion allotted to each phase of the present inquiry, the particular problem which confronts the school in any given aspect of the study has been pointed out. The detailed problems are all contributory to one or the other of the two general issues. One of these relates to the utilization of recreational interests and activities as motives and groundwork of a school program which will make the child realize that his school studies are genuine opportunities for enriching those interests and activities which he so enjoys outside of school. The other general issue is that of making the school work in physical education, music, the reading of current literature, science, and the practical and fine arts so well worth while and enjoyable that the child's work in school will go far in determining his spare-time interests and activities outside of school. The two problems are but aspects of the largest present-day education problem: that of reconstructing the school

curriculum in terms of the life-interests, the practical activities, and the social values of our day and generation. Health, practical efficiency, citizenship, and the wise use of leisure are the four great, in many respects interlocking objectives of education and of life. If the first three of these are well realized, they give much of tone and content to the use of leisure, and the wholesome use of leisure contributes profoundly to the realization of the others. When the school comes to reflect the desirable interests and activities of the world outside of school, and so shapes its work as to promote all of these in the direction of greater efficiency and wholesomeness, the problem of the utilization of the energies represented by spare-time activities as well as of their direction will be solved. The change cannot all come in a day or a month, but, taking up one by one the subjects which it is charged to teach, and dealing in turn with the problems of each, the school may steadily and increasingly check the wastage which has been revealed in the course of this inquiry—a wastage to the school in loss of bases of motivation, to spare-time activity in loss of stimulation and direction.

APPENDIX

The accompanying forms were used in collecting the data for this study. As the text indicates, many facts were obtained which were not found sufficiently pertinent to the specific problem, as it finally resolved itself, to warrant their use. But the problem was so new and had so many aspects, that every avenue which promised any material which might have possible significance was followed. Analysis of the great mass of data thus secured resulted in the selection of those elements discussed in this volume.

The designation in the upper left-hand corner of each form or questionnaire indicates the group or groups of persons to whom it was submitted. "Out-school" refers to the group of employees—i. e., persons not attending school; the "in-school" divisions are self-explanatory.

The Report Blanks

The questionnaires (*A*, *B*, *B-1*, *C-1*, *C-2*, *D*, *E*).—These blanks show how the direct questions were put, the specifications for the compositions, the forms of the calendars from which the scores on spare-time activities and interests were computed, and the manner in which the arrays of school subjects were presented for the indication of preferences.

The Ability Tests

The ability test forms (*F*, *G*, *H*, and *I*) were given to only 1,500 of the 15,000 pupils whose replies on the other forms were obtained.

The completion test (*F*).—The form here used is the Trabue Language Test *C*, which has been found to be well adapted to testing classes ranging from the fifth grade through the senior year of the high school. The Trabue language tests are described

A—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

1. Name..... Grade..... Name of School.....
2. Age at nearest birthday..... Address.....
   Where were you born?.....
3. Have you ever lived in the country or in a small village? .....
   If so, how long?.....
   If you have ever gone to a summer camp, state how many times. .....
   Have you gone on vacation trips?..... If so, where? .....
4. Do you work outside of school?.....
   If so, how many hours a week?.... How much money do you make a week?.....
   What do you do with the money you earn?.....
5. In the spaces below put down what you did in your spare time for the following days. Tell what you did from the time you got up in the morning until you went to bed.

	In the Mornings	In the Afternoons	In the Evenings
On last Saturday.....			
On last Sunday.....			
On the last day you went to school.....			

6. In the spaces below, tell what you do in your spare time.

In Winter	In Summer
.....	.....
.....	.....
.....	.....
.....	.....

7. What pets or animals are there at your home? .....
   What do you do to help take care of these? .....
8. Is there a garden at your home?.....
   If so, how large is it? ..... Do you help to take care of it? .....
9. Do you make things or work with tools at home? .....
   If so, what kind of things do you make? .....
   .....
10. Do you have any collections? ..... If so, of what? .....
11. What did you like best about school? .....
12. Of the things you learned in school, which do you do for fun outside of school? .....

in full in *Completion Test Language Scales*, by M. R. Trabue (Bureau of Publications, Teachers College, Columbia University).

The completion tests stand high in reliability as indices of general intelligence, and the forms developed by Trabue have been especially well tested and graded. In his *Manual of Mental and Physical Tests*, Vol. II, Whipple states (p. 297) that "co-

B—In-School (Elementary)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name..... .....Grade.....Name of School.....
Address .....Age .....
If your father is living, what is his occupation?.....
How many hours a day does he work?.....
What does he do in his spare time on week days?.....
.....
What does he do in his spare time on Saturdays?.....
.....
What does he do in his spare time on Sundays?.....
.....

If your mother is living, does she do her own housework?.....
Does she do any work for pay? .....If so, what?.....
Does she help your father in his work?.....If so, how?.....
What does she do in her spare time on week days?.....
.....
What does she do in her spare time on Saturdays?.....
.....
What does she do in her spare time on Sundays?.....
.....

efficients of reliability computed by different investigators for varying forms of this test have, as a rule, been quite high."

The opposites test (*G*).—The set of 50 words given here is List II from *A Manual for the Mental and Physical Examination of Children*, by W. N. Pyle (University of Missouri Bulletin, Vol. XVII, No. 24, p. 15). Actual use has established this list as widely usable, being adapted to pupils ranging from the fourth grade through the high school.

In a discussion of the results secured by those who have experimented in the use of the opposites test, Whipple, in the

B-1—In-School (High), Out-School

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name..... Grade..... Name of School .....
Address..... Age .....
What are the things that you liked to do in your spare time as a child that you still like to do? .....
.....
Of the things that you like to do in your spare time tell at what age you first began to like to do them.....
What are some of the things that you cared for as a child that you do not care for now? .....
.....

If your father is living, what is his occupation? .....
How many hours a day does he work? .....
What does he do in his spare time on week days? .....
.....
What does he do in his spare time on Saturdays? .....
.....
What does he do in his spare time on Sundays? .....
.....

If your mother is living, does she do her own housework? .....
Does she do any work for pay?.....
If so, what?
Does she help your father in his work? .....
If so, how? .....
What does she do in her spare time on week days? .....
.....
What does she do in her spare time on Saturdays? .....
.....
What does she do in her spare time on Sundays? .....
.....

manual referred to above, concludes (p. 452) that the test "may be regarded as possessing a good degree of reliability." In the present writer's study of the reasoning ability of chil-

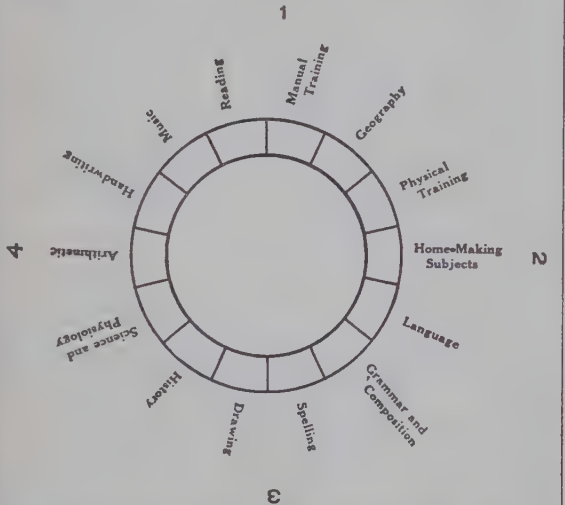
dren, this test had a correlation of .85 with the average scores of the children in all the tests used to measure reasoning ability; perfect correlation would have been 1.00.

C-1—In-School (Elementary and High), Out-School

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name..... Grade..... Name of School.....
Address..... Age.....



Put in each space a number from 1 to 14. Number the school subject you like best, **1**, the one you like next best, **2**, and so on.

The vocabulary test (H).—The test used is a modified form of the Kirkpatrick vocabulary test, made by Bonser and Birch, and used in 1915 in the classes and schools of Teachers Col-

lege, Columbia University, and in neighboring public and private schools. It is based upon Webster's *Elementary School Dictionary*,

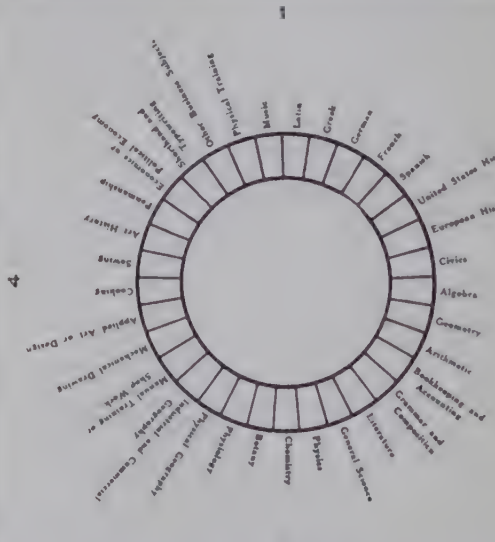
C-2—In-School (High), Out-School

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name..... Grade..... Name of School.....

Address..... Age .....



Put in each space a number from 1 to 33. Number the high school subject you like best, **1**, the one you like next best, **2**, and so on. Put a ✓ in the space opposite each subject you have **not** taken.

which contains 44,000 words. Its derivation and first application are described in *The School and Society*, Vol. II, pp. 713–18.

D—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name.....Grade.....Name of School.....

Address.....Age .....

Write a paper telling what you did on the last day you went to school, and also what you did on last Saturday and Sunday. Tell how and where you spent all of each hour from the time you got up until the time you went to bed.

YOUR school and YOUR room have been chosen to do this. The nearer YOU come to telling *all* YOU did *each* hour and *where*, the more YOU will help.

Write a list of the books you have recently read.

Write a list of the papers and magazines you read.

Of the things you read about, what do you do or make outside of school?

E—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name.....Grade.....Name of School.....

Address .....Age.....

1. Do you play baseball?

	Outdoor	Indoor
Regular Team		
No Regular Team		

Which is your position?

.....Pitcher ..... 2d base .....L. F.
.....Catcher ..... 3d base .....R. F.
.....1st base .....S. S. .....C. F.

Are you a captain?.....

Have you ever been a captain? .....

What is your substitute position?.....

At what age did you begin to play baseball?.....

Where do you play? .....

.....

1. Do you play basket-ball?.....

	Outdoor	Indoor
Regular Team		
No Regular Team		

Which is your position?

.....Center .....Right Forward
.....Right Guard .....Left Forward
.....Left Guard

Are you a captain?.....

Have you ever been a captain?.....

What is your substitute position?.....

At what age did you begin to play basket-ball?.....

Where do you play? .....

.....

Make a list of all the things you do for fun.

The visual vocabulary test is a test of intellectual equipment and the use of this list, by various investigators, in testing ove 300 college students of the Junior and Senior years, and numer ous elementary school pupils, has shown it to be an index o substantial reliability for measuring intellectual ability an equipment and to be sufficiently broad in its range to serve a a satisfactory test for pupils of all the grades from the fourt upward through the high school and college classes.

F—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name . . Grade . . . Name of School . . . .

Write only one word in each blank space.

2. The sky . . . . . blue.
5. Men . . . . . older than boys.
12. Good boys . . . . . kind . . . . . their sisters.
19. The girl fell and . . . . . her head.
24. The . . . . . rises . . . . . the morning and . . . . . at night.
30. The boys who . . . . . hard . . . . . do well.
37. Men . . . . . more . . . . . to do heavy work . . . . . women.
44. The sun is so . . . . . that one cannot . . . . . directly . . . . . causing great discomfort to the eyes.
53. The knowledge of . . . . . use fire is . . . . . of . . . . . important things known by . . . . . but unknown . . . . . animals.
56. One ought to . . . . . great care to . . . . . the right . . . . . of . . . . . , for one who . . . . . bad habits . . . . . it . . . . . to get away from them.

The maze test (*I*).—The two forms of the maze test (I and II) were designed by the writer of this volume for testing voluntary motor control where important requisites are that the forms used should be administrable as group tests and take up but a small amount of time.

In *A Study in Educational Prognosis*, by E. K. Fretwell (Bureau of Publications, Teachers College, Columbia University), the first five tests used, in the order of their correlation

with the subsequent school performance of junior high school pupils, were: (1) the Thorndike reading test, *A*2, Part 2; (2) Thorndike visual vocabulary tests, either extension *X* or extension *Y;* (3) the opposites test; (4) spelling tests; and (5) Trabue completion tests. The opposites and completion tests

G—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name ..... Grade..... Name of School..... .....

Beside each word write a word that has the opposite meaning.

1. strong	26. hot
2. deep	27. long
3. lazy	28. wet
4. seldom	29. fierce
5. thin	30. great
6. soft	31. dead
7. many	32. cloudy
8. valuable	33. hard
9. gloomy	34. bright
10. rude	35. fine
11. dark	36. plain
12. rough	37. sharp
13. pretty	38. late
14. high	39. sour
15. foolish	40. wide
16. present	41. drunk
17. glad	42. tight
18. strange	43. empty
19. wrong	44. sick
20. quickly	45. friend
21. black	46. above
22. good	47. loud
23. fast	48. war
24. clean	49. in
25. tall	50. yes

used by Fretwell are of the same form as those used in this Survey study. The vocabulary test differs in form, but the meaning of its results is very much the same. In general, the results of Fretwell's study support the validity of the tests here used for measuring general ability or intelligence.

H—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name.....Grade .....Name of School .....

Mark with a plus sign (+) all of the following words that you know, with a minus sign (—) all of the words that you do not know, and with a question mark (?) all of those words of whose meaning you are in doubt. When through, count, and fill out these spaces:

Number known ..... **Number unknown** ..... **Doubtful** .....

abyss	effectual	myrtle	straight
addle	embrasure	neolithic	stupor
affliction	ensure	noodle	suitable
alkali	esculent	oblivion	sword
ammunition	excess	ordinance	talker
ant	expression	overbearing	teeming
appointee	feeling	palimpsest	tether
armpit	filthy	parodist	thread-worn
auspice	flange	patrimonial	titanic
bail	flux	pennon	topmast
base	fork	persuasible	transfiguration
bedraggle	friability	pickaback	trigger
betrayal	gainsay	plus	tuck
bitten	gentility	popularization	undersigning
bluffness	grampus	prairie chicken	unwritten
boundary	grits	presidency	variability
bunghole	halberd	procession	vertiginous
calash	hatch	proprietary	vitalize
capillary	hello	pulverize	walnut
casing	hit	quake	weariness
cave	horde	react	whiskered
channel	hydrocarbon	rectification	witchery
chine	inattention	regularly	yachting
cirrus	indigenous	replacement	typesetter
communicable	ingratitude	resistless	sterilization
conciliator	inspissate	revolution	motion picture
collusion	intimation	rocker	dispossess
conquest	irreversible	rubble	dung
contour	jocular	satrapy	mollify
corn	keg	scoriaceous	staminal
coupe	latex	second-class	drainage
crestfallen	legislation	seamstress	misemploy
cutpurse	lightly	severity	spookish
Davy lamp	locative	shifty	discern
deepen	lugubrious	shyster	midday
delve	make	siro	specification
desiccate	master-stroke	snath	dictum
manifesto	songster		

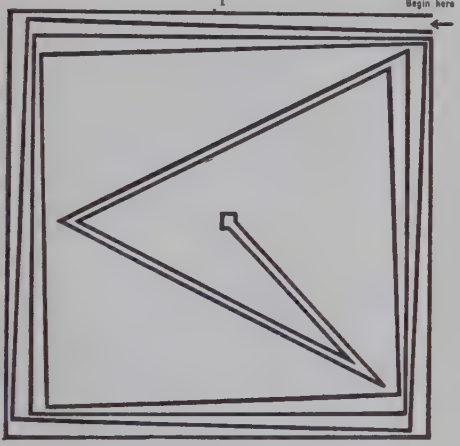
I—In-School (Elementary and High)

Cleveland Foundation Recreation Survey

SCHOOL WORK AND SPARE TIME

Name.....Grade.....Name of School.....

I



II

CLEVELAND RECREATION SURVEY REPORTS

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WHOLESOME CITIZENS AND SPARE TIME
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KATHERINE VASSAULT, Richmond Hill Social Settlement, New York City

THE COMMERCIALIZATION OF RECREATION
CHARLOTTE RUMBOLD, Formerly Secretary Public Recreation Commission, St. Louis, Mo.; Assistant Secretary Chamber of Commerce, Cleveland, Ohio

PUBLIC PROVISION FOR RECREATION
ROWLAND HAYNES, Formerly Recreation Secretary New York Board of Estimate and Apportionment; Director War Camp Community Service, New York City

SUMMARY

A COMMUNITY RECREATION PROGRAM
ROWLAND HAYNES, Directing Consultant
ALLEN T. BURNS, Director

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